Australian CSG and UCG

Bakers Research Note

Overlapping CSG and UCG Tenements in Queensland By Nick Leonard

In recent years, Queensland has cultivated a coalseam gas (CSG) industry, developing a few of the fastest growing companies on the ASX, such as Queensland Gas Corporation and Arrow Energy. Syngas (synthetic gas) production via underground coal-seam gasification (UCG) is an emerging method of extracting gas from coal-seams and is increasing competition for reserves in the region. As licences are granted and petroleum, gas and various mineral resources are acquired by companies, the issue of overlapping tenements becomes more apparent. UCG, CSG and minerals extraction can potentially operate at the single geographic location but at different depths and on different tenements. This issue paper will explore Queensland's legislation on overlapping tenements and the current state-of-play of its effects on the Queensland gas industry.

To extinguish misconception, a granted tenure does not necessarily give right to exploration or extraction of resources¹. Tenure may be in the form of an Authority to Prospect (ATP) or a Petroleum Lease². A Petroleum Lease could be granted to undertake exploration, production and storage activities, petroleum pipeline and water pipeline construction and operation activities or petroleum processing activities. Prior to 2004, Queensland gas company's tenures were governed by the Petroleum Act 1923. In 2004, the State Government introduced the Petroleum and Gas (Production and Safety) Act 2004 (P&G Act), while at present, the system of mineral mining tenures is governed by the Minerals Resources Act 1989 (MRA).

According to Queensland legislation under the MRA, in the case of minerals tenures overlapping petroleum tenures, the miner is encouraged to reach agreement with the holders of the overlapping tenure. For the case of a petroleum lease overlapping an ATP, again an agreement between the two parties is encouraged. This area of law will perhaps quickly develop to more clearly govern the issue of overlapping tenements, as it increasingly impacts the state's gas companies.

At present in Queensland, the issue of overlapping tenements draws three major parties - CSG companies, UCG companies and the Queensland Government. BG Group (British Gas) acquired Queensland's largest holder of 3P (possible, probable and proved) coal seam gas reserves and local dominate CSG player, Queensland Gas Company (QGC), acquiring more than 90% of QGC by 15 Nov 2008 and completing the transaction before close of trading on the 15 Dec 2008. Upon this acquisition, BG placed pressure on the Queensland Group Government to give CSG companies priority over UCG players to explore Queensland's coal rich areas³.

The UCG industry in Australia is emerging whereby companies such as Linc Energy and Carbon Energy are in phases of testing and evaluation demonstration facilities. In terms of market capitilisation and the development of technology, processes and infrastructure, the UCG industry is dwarfed by the CSG companies. These CSG companies such as Origin Energy, Arrow Energy, Santos and BG Group are all in competition with each other and UCG companies to secure reserves.

UCG operates at a depth of 300m, a greater depth than what CSG commonly operates. At this depth UCG enables coal-seam gas to be extracted at a



¹ Hopgood Ganim Lawyers, May 2007, 'Understanding Overlaps – Mining Tenure Vs. the Rest of the World', viewed 18 Dec 2008, http://www.hopgoodganim.com.au/_upload/20081017164404427.p df >

² Petroleum and Gas (Production and Safety) Act 2004

³ Grant-Taylor, Tony 19 Nov 2008, 'Linc pulls out of Queensland \$1b liquids plan, heads to SA', viewed 20 Nov 2008, http://www.news.com.au/couriermail/story/0,23739,24678311-3122,00.html

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much greater financial pay-off than CSG⁴. Since the two methods may often be operating on tenements at different depths, their respective tenements at times will overlap. Up to 2% of Linc Energy's tenements at the company's Chinchilla site are overlapping with some of BG Group's tenements. Linc Energy formally announced on 19 Nov 2008⁵ a commitment to move their demonstration facility from Chinchilla to South Australia. About \$50 million has already been spent on exploration and pilot facilities at Linc's Chinchilla site. As new players and technologies enter the Queensland gas industry, high value tenements will become scarce and the issue of overlapping tenements will become more topical.

The Queensland Government does not appear to hold a definitive stance on the issue of overlapping tenements. During the unfolding of BG Group's QGC acquisition and Linc Energy's change in strategy, the State Government Mines and Energy Minister, Minister Geoff Wilson said, "We want to develop a policy position that is in the best interests of all stakeholders."

"These (UCG) projects are in a pilot phase, which is why they have a conditional tenure and that gives no automatic right to a production tenure at a later point," he said at the time.

"We're not about to give the green light to underground coal gasification projects, especially where any of them may affect the Great Artesian Basin, unless we're convinced it's in the best interests of Queensland."

The main issues of overlapping tenements in Queensland, as discussed in this paper are the underdeveloped legislation and the overall increased competition for gas tenements. Another key issue is the CSG and UCG companies operating on different tenements, at different depths, however at the same geographic location and following this, the impartial stance by the State Government on permitting the UCG businesses to commercially produce syngas.

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⁴ Price Waterhouse Coopers, May 2008, 'Industry Review and an Assessment of the Potential of UCG and UCG Value Added Products', viewed 18 Dec 2008, https://www.lincenergy.com.au/pdf/ucgreport-01.pdf

⁵ Bond, Peter Nov 2008, 'Linc Energy Commits UCG Project to South Australia', Australian Stock Exchange website, viewed 18 Dec 2008,

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