

OIL & GAS AUSTRALIA SECTOR UPDATE February 2015



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OIL & GAS AUSTRALIA - SECTOR UPDATE - February 2015

Highlights

- Still very much a positive outlook for Australian LNG oil price recovery/LNG demand set to increase
- LNG Export Markets favourable market conditions/competitive advantage Australia still on track to be no.1 exporter
- FLNG reducing project lifecycle costs
- Coal seam gas revenue boom
- Exploration opportunity hotting up South Australian Bight
- Hiring trends permanent vs contracting, in-demand skills by state

The outlook remains positive for the Australian Oil & Gas Sector, despite a background of falling oil prices in 2014, global oversupply and escalating costs.

The sharp fall in oil prices in the latter half of 2014 (a near 50% slump in Asian LNG prices, the lowest for over the last 4.5 years), together with prolonged high levels of production globally and weakening global demand (with lower than expected demand in China in 2014, a key export market for Australia), cost over-runs and high construction and



commissioning costs have impacted greatly on the Australian oil & gas industry. In the current low oil price environment oil & gas companies in Australia across the board, like their global counterparts, have had to take strong measures to slash costs on everything from operations to exploration in order to protect profits; from cutting capital expenditure budgets, delaying or cancelling projects and job losses.

Nonetheless, the Australian LNG sector continues to push ahead with current projects;

- BG's \$US20.4bn Queensland Curtis project in Gladstone shipped its first cargo in Jan 2015
- Origin Energy's \$24.7bn Australia Pacific LNG project in Queensland is due to start up about mid-2015
- Santos's \$US18.5bn Gladstone LNG venture in Queensland
- Chevron's \$US54bn Gorgon venture in Western Australia is due to begin production in late 2015 and its \$US29bn Wheatstone venture in Western Australia is due to start up in 2016
- Inpex's \$US34bn Ichthys venture in Darwin is due to complete construction in late 2016
- Shell's Prelude FLNG project in the Browse Basin is scheduled for start-up in 2016/2017
- Woodside continues as operator of the Browse Joint Venture having switched from onshore processing to floating LNG platforms, with a decision whether the project gets a full go-ahead by mid-2016

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Sources: 26 Jan 2015 http://www.hellenicshippingnews.com/tumbling-oil-prices-could-mean-30b-hit-for-australias-lng-exports/ 30 Dec 2014 http://www.smh.com.au/business/mining-and-resources/worldfirst-converted-gas-starts-export-journey-20141230-12fec0.html 16 Dec 2014 http://www.abc.net.au/news/2014-12-16/woodside-buys-assets-delays-browse-decision/5970130





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Oil Prices Set To Recover in 2015

The U.S. IEA (International Energy Agency) stated at the start of February 2015 that the plunge in oil prices is unlikely to last much longer and that a recovery in oil prices will likely be swift, predicts oil prices for 2015 to stay around \$55 per barrel, recovering gradually to hit \$73 per barrel by 2020. On a much more optimistic note, Total CEO Patrick Pouyanné in January 2015 stated that "investment cutting by oil producing firms could squeeze supply and send oil up to \$200 per barrel within 5 years".



Australian LNG Export Revenue Earnings To Rocket

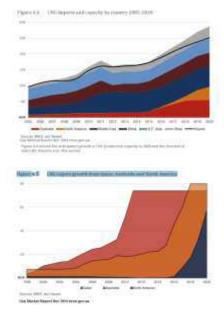
In terms of the impact of oil prices on LNG revenue, analysts predict that if oil prices follow the "forward curve*", Australia's export earnings from LNG will total \$36 billion in 2017-18, compared to the \$67bn that could have been expected if oil prices had stayed at 2013-14 levels. However, this figure still represents a huge increase from \$16bn of LNG export revenue in 2013-14.

Market conditions will ensure LNG Australia is better positioned than global rivals to ensure it remains on track to become the world no. 1 LNG exporter by 2030;

Global LNG demand is set to from 2013 levels by 2030, implying an average annual growth rate of 4 to 5%. The EIA forecasts that gas demand from China, a key Australian LNG export market will rebound and double by 2020 and the same again by 2040 with continued demand is also forecast from Korea and Japan, the world's largest LNG importer. Asian markets account for almost 70% of global LNG exports.

Asian markets represent good opportunities for Australian LNG as their emerging economies have outpaced the domestic energy supply-demand balance and Australian LNG is in a better position due to its geographic proximity. Australian LNG will face supply competition from Asian suppliers (Indonesia, Malaysia and Papua New Guinea) and increasingly from US shale gas and a proposed pipeline between Russia and China and rising costs.

Australian LNG has already shown that it can compete on price however -Petronet LNG Ltd India is to start importing LNG from Australia by to the end of 2015 from the Exxon Mobil-owned Gorgon LNG plant in Australia on a 20-year deal at a rate which will be about 40% less than the price of its current shipments from Qatar on a long-term contract.



[* The "forward curve" provides an estimate of future "spot" prices for energy sources such LNG or oil based on existing contracts for delivery of that energy in the future] Sources: 9 Feb 2015 http://www.wsj.com/articles/plunge-in-oil-prices-unlikely-to-last-much-longer-iea-says-1423530032

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LNG Australia has competitive advantage over global rivals to ensure it remains on track to become the world no. 1 LNG exporter by 2020

Triple Increase In Australian LNG Export Capacity by 2020

Australia's LNG export capacity is set to more than triple to 86m tons a year by 2020, putting it ahead of current leader Qatar which exports 77m tons per annum and U.S. expectations of selling 61.5 million tons per annum by 2020. Australia is expected to move ahead of Malaysia as the world's No.2 LNG exporter in 2015 and by 2018 will become the biggest supplier ahead of Qatar,



Risk factors

Factors to be taken into consideration which could have an impact on Australian LNG's success in Asian markets include further downward pressure on the price of LNG in Asia with the flood of new high-cost capacity that is soon expected to come on stream from Australia, a weakening of the Chinese economy, decreased demand from Japan if nuclear power is restarted (nuclear reactor restarts are mooted to begin as soon as May 2015, according to the EIA) and demand for gas decreases.

ources: 23 December 2014 http://www.oilandgas360.com/state-Ing-australia/

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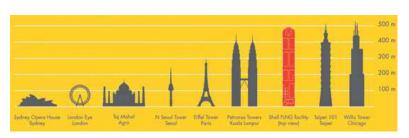


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FLNG (Floating Liquified Natural Gas) Developments

The oil and gas industry in Australia is investing heavily in **FLNG** a as a viable solution for offshore gas development with four projects already in the construction phase and 10 more in the design phase. The industry has placed a significant stake in the development of FLNG as a means of reducing the project lifecycle costs for LNG developments

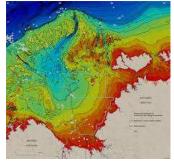
The first full-scale Australian FLNG project, Shell's Prelude off the coast of Western Australia will come onstream in 2016/2017. Construction costs have not been disclosed but industry experts put the price of Prelude between \$10 and \$12bn, more costly than a land based facility. However, costs are expected to be slashed with experience, and subsequent models are expected to require significantly less investment than an onshore LNG plant.



et Nata rad-Gas (FLNG) P



Woodside's recent decision to recommend FLNG technology as its preferred development option for its Browse project is highly significant. It is the latest in a series of developments that highlight how the industry's attitudes towards FLNG have radically changed in a remarkably short time. No longer is FLNG regarded as just a way of developing remote stranded gas fields for which an onshore solution would not be economically feasible. Today FLNG is increasingly seen as a game-changing technology that could solve one of the industry's most daunting challenges: how to reduce the escalating costs of constructing gas liquefaction projects.



Sources: 11 Feb 2015 http://www.reuters.com/article/2015/02/12/australia-santos-impairment-idUSL4N0VL5O920150212 23 December 2014 http://www.oilandgas360.com/state-Ing-australia/ 1 February 2015 https://www.zawya.com/story/Floating_an_idea-ZAWYA20150201063918/







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Exploration – Renewed Interest & Opportunities - The Bight Basin South Australia

The Bight is considered to have the potential to be one of the largest offshore oil basins in the world, what prospectors believe may be "the world's next major new oilfield and would present a huge economic boost to the state, especially Eyre Peninsula, and create thousands of jobs on land and at sea".

Although there has been exploration over the last 20 years, it has been abandoned because of the expected difficulties in bringing it to production, but times have changed, the technology is now there and available to both find and also extract the oil and gas,"



- In 2015 four new seismic survey missions will join three already probing the seabed off South Australia, a sign of unprecedented confidence in the region's oil and gas potential.
- A total of six oil companies will spend \$1.2bn on surveys and the drilling of nine wells and that if research results were favourable, the explorers would spend a further \$1.1bn on another 13 wells seismic surveys in the following three years.
- BP has expressed its confidence in the region through a \$1.437bn exploration program, starting with \$605m to be spent on its search for oil and gas, much of it in the next two years. BP, in partnership with Statoil (30 per cent), is the most advanced explorer and will drill four wells from early next year until late 2017.
- Chevron has two permit areas next to BP and plans to drill four wells at a cost of more than \$500m between 2016 and 2019BP has committed to building a heliport to serve its (and Chevron's) operations in the basin, with exploration drilling expected to take place by 2016

Petroleum Exploration Expenditure Australia

Overall petroleum exploration spending in Australia is set to fall around 19% to \$3.76 billion in 2015 as a greater than 50 per cent slide in oil prices last year due to oversupply makes developing new projects far less attractive whereas high oil prices have acted as an incentive for global companies to invest in petroleum exploration over the past five year. Oversupply will also hamper exploration in 2015, as Australian companies are unable to compete with the low production costs and high production volumes from the world's major oil producers



Sources: 11 Jan 2015 http://www.abc.net.au/news/2015-01-12/coal-seam-gas-boom-but-petroleum-exploration-bust/6011996 2.2.15 http://www.epmag.com/australia-keeps-eyes-prize-779811#p=full







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Coal seam gas (GSG) boom forecast

Coal seam gas (CSG) production in the Surat Basin has moved from the construction phase to the less labourintensive operational and maintenance phases. A 148% growth in coal seam gas extraction revenue is forecast (to \$1.83bn) in 2015 as the development of LNG export capabilities drives rapid industry growth and new LNG processing plants coming online to process coal seam gas.

In December 2014 the coal seam gas market achieved a key milestone



as BG Group loaded the first cargo from its \$20bn Queensland coal seam gas LNG project in Australia to turn coal seam gas into LNG for shipment. In February 2015 Australia Pacific LNG also achieved a significant milestone with the arrival of first gas from its coal seam gas fields in the Surat Basin to its LNG facility on Curtis Island, near Gladstone, Queensland. Senex Energy has also been producing CSG wells in the Surat Basin in Queensland which will also help feed the new LNG projects, also Beach Energy's venture with Chevron

Shale Gas Update

Shale resource exploration efforts are still underway in Australia, but operators say it could take up to a decade for reserves to be pumped out in viable quantities to replicate the U.S. boom because of the need to procure expensive equipment for drilling and extraction and due to varying geological conditions. Australia has large shale-gas formations similar in size to the Marcellus and Bakken formations in the US, but producers are still in the early stages of testing if their geological properties are similar



enough to support commercial production. The cost of producing shale gas in Australia is likely to be higher than for other resources, because of the need to acquire technology to undertake the complicated process of smashing the rocks open with sand, chemicals and water in a process known as hydraulic fracturing, or fracking.

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^{26.09. 2014} http://www.theaustralian.com.au/business/mining-energy/shale-gas-success-still-a-decade-away-for-australia-says-santos/story-e6frg9df-1227071129221





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Hiring trends

- Permanent hiring activity in parts of Australia's oil and gas sector has cooled since early 2014
- **Contracting** is being used for risk management in contrast to permanent hiring, over the last six months the contract market has not only remained strong, but is also growing. Contrary to previous years, contract roles are being given definitive end dates and for the most part, these timelines are being adhered to (1)
- The majority of businesses are tendering for operations and maintenance contracts. There will be few openings for permanent positions as employers need to prove strong commercial grounds for adding full-time employees to their teams, although in Victoria there has been a steady flow of permanent roles, predominantly from SME equipment design and manufacturing companies and this is expected to continue. There will also be an increasing need for temporary staff with gas pipeline experience as a number of contractors have picked up work. Both white and blue collar candidates are being considered
- **Skills shortages** persist in the contract market (reflecting the uncertainty many employers are feeling) and in FLNG in Western Australia
- Working smarter Oil & gas companies in Australia will be hiring in 2015, but with project delays and cost pressures (especially in Western Australia) hiring and workforce planning is becoming increasingly challenging and demand will be for people who can offer effective process or costs solutions and improved efficiencies (1)

Western Australia - In-demand skills

- Hiring in Western Australia favours temporary contractors over permanent employees. This is in part driven by joint ventures reaching peak construction phases, so employers are using flexible workforces to control costs
- Increased demand for **Cost Engineers** for capital expansion and brownfields engineering projects
- Wireline Engineers/Operators Oilfield services, particularly senior level candidates with the appropriate experience.
- **Dual Trade Qualified E&I Technicians** who hold a Western Australia grade electrical license and a Certificate IV instrumentation qualification are in high
- 6G Coded Offshore Welders
- Quality Inspectors with CSWIP 3.1 qualification are in high demand



Sources: 12 January 2015 http://www.hays.com.au/press-releases/HAYS_244938 January 2015 http://www.hays.com.au/report/oil-gas-11234 12 January 2015 http://www.hays.com.au/press-releases/HAYS_244938 28 October 28, 2014 http://social.hays.com/oil-gas/australia-plays-waiting-game-oil-gas-global-salary-guide/#.VNDU-_7kd9U







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Queensland - In-demand skills

- In Queensland, there is renewed activity and fresh contracts are being released as work starts on brownfield projects and an upstream coal gas projects.
- **Shutdown Specialists** Planners and Coordinators for new infrastructure are in demand in Gladstone and the Surat Basin.
- **Petroleum Engineers** Engineers with coal bed methane or tight gas experience are highly sought due to new tenements being explored with low permeability reserves.
- Commissioning Engineers needed to complete infrastructure works and activate them

Victoria - In-demand skills

- Very technical candidates with specific skill sets are experiencing steady demand Victoria. Employers seek fully qualified candidates and are often unwilling to train the less experienced staff into the market.
- Physical Gas Traders, operations
- **Gas Workers** From general Certificate II or III Field Workers to Crew Leaders, with operational gas pipeline experience
- Designers and Drafters
- Project Engineers and Project Managers

South Australia - In-demand skills

- As exploration projects increase in 2015 in the Great Australian Bight, off South Australia (four more survey missions will kick off this year in addition to the existing three) thousands of onshore and offshore jobs are forecast with **drilling and surveying jobs** in the short-term required. BP has also said **support service jobs** would be created in **transport and logistics, supplying fuel, food and transport services**
- Very technical candidates with specific skill sets are experiencing steady demand in South Australia. Employers are seeking fully qualified candidates and are often unwilling to train the less experienced staff into the market
- Developments in the Cooper Basin of South Australia has created activity in both the permanent employee and temporary contractor markets. There is a shortage of local skilled talent and many positions are filled by expats. However, there is an expectation that hiring for operations and maintenance roles will continue to increase.

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About Ten Live

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With our roots in Scotland, Ten Live operate across the United Kingdom, Australia, MENA, Asia Pacific, Africa and the U.S.

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We offer a range of specialist recruitment and resource management services in Technical, Telecoms and Supply Chain markets – not only recruiting, but ensuring staff are fully trained prior to joining your organisation. Ten Live go above and beyond simply placing a candidate; we work continually with them, providing training to ensure they are offering you the best they can.

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