EASTERN AUSTRALIA
Upstream Gas Report

MAY 2013

CORPORATE ACTIVITY

WestSide Corporation

14 MAY: WestSide Corporation reported that PetroChina had withdrawn an indicative takeover proposal. The Chinese company first approached WestSide on 19 November 2012 and remained in negotiations with the company for almost six months. It has told WestSide that it withdrew the bid because the general situation in Australia has changed significantly. The bid price discussed was $0.52 per share, valuing WestSide at $182m. At the end of May the company's share price had declined to $0.175, giving it a market cap of $63m.

WestSide advised that it is continuing to explore strategic options including joint ventures, gas sales agreements or a sale of the company. The company is in negotiations with LNG Limited, which is seeking gas supplies for its proposed Fisherman's Landing LNG project, as well as with other parties. WestSide's Meridian SeamGas Field is the closest producing gas field to the Curtis Island LNG precinct.

Santos

9 MAY: Santos Chairman Peter Coates retired to take up a full time executive role with Glencore. Santos' appointed Ken Borda as its new Chairman with Mr Coates remaining on the company Board as a non-executive Director.

APA Group

1 MAY: APA Group reported that it had completed the sale of the Moomba to Adelaide Pipeline System for $400.6m. The pipeline was bought by QIC Global Infrastructure, with APA forced to divest it as part of undertakings to the ACCC that allowed it to buy Hastings Diversified Utilities Fund and the Epic Energy Pipeline business.

EXPLORATION AND APPRAISAL

Queensland

24 MAY: The Queensland Department of Natural Resources and Mines released six new petroleum and gas exploration tenements for competitive tender. The permits are located in greenfield and lightly explored areas in the Bowen, Surat and Lakefield Laura Basins and cover a total area of some 8,700 km^2. The tenements will be awarded on a competitive tender basis, with the government assessing the proposed work program from the tenderers, as well as their technical and financial capabilities. Applications will close on 22 November 2013.

Earlier in May the government awarded the first petroleum exploration tenement under its new cash bidding tender process for highly prospective areas. Two 75 km^2 areas within the Surat Basin were offered in the round but acceptable bids were received for only one of the areas. The government awarded the new authority to prospect (ATP 1178P), located immediately to the west of APLNG'S Combabula Gasfield, to APLNG on the 3rd of May. The Government has not revealed how much APLNG paid for the tenement.

LNG

LNG Limited

31 MAY: LNG Limited reported that the Gladstone Ports Corporation had extended its lease option over its Fisherman's Landing project site. The agreement has been extended by six months until 30 June 2014, giving the company more time to secure gas supplies for its proposed 3 MTPA LNG project. LNG Limited is working with PetroChina, which has signed a letter of intent to work towards supplying the project, as well as negotiating with WestSide Corporation and another gas producer.

BG Group

14 MAY: BG Group reported that the QCLNG project was on track to see first gas to Curtis Island at the end of this year, allowing commissioning to start on schedule prior to the planned first export of LNG in the second half of 2014. The company expects that it will deliver the project at the budgeted cost of US$20.4b that it announced in May last year. BG expects the project will ramp-up to 8 MTPA of production during 2016 after which there will be an opportunity to increase capacity by 5-10% through de-bottlenecking the plant. QCLNG's nameplate capacity is 4.25 MTPA for each of the project's two trains. Once the project is operating at capacity BG expects it generate the company a net US$3.5 -4b of operating cash annually with margins above US$50/ boe. The company has a team of 50 undertaking exploration to discover gas resources for a potential third QCLNG train; additionally to CSG from both the Bowen and Surat Basins, options for gas supply include deep sands in the Bowen Basin and shale and tight gas in the Cooper Basin. BG estimates its QGC subsidiary has a total gross gas resource of 29 tcf.

6 MAY: BG Group reported that it's agreement with China National Offshore Oil Corporation (CNOOC) for the supply of 5 MTPA of LNG for twenty years and the sale of an interest in the QCLNG project had been sealed through the signing of binding agreements. Completion of the transaction is now dependent on Australian and Chinese government and regulatory approvals. The transaction deepens the alignment between BG and CNOOC relating to QCLNG, after the

Chinese company agreed in 2010 to purchase a stake in the project and 3.6 MTPA of LNG for twenty years to be supplied from Curtis Island.

Under the latest agreement CNOOC will pay US$1.93b ($1.85b) to increase its ownership of various parts of QCLNG, including: 40% of Train 1 (increasing its stake to 50%), 20% of various tenements in the Central Walloons fairway in the Surat Basin (increasing its stake to 25%), 25% of various other tenements in the Surat and Bowen Basins and the option to take a 25% interest in a potential third QCLNG train. The agreement also calls for BG to supply 5 MTPA of LNG to CNOOC from its global portfolio, starting in 2015. The agreement between the companies was first announced in October last year.

GOVERNMENT AND REGULATION

NSW Government

27 MAY: The New South Wales Resources and Energy Minister Chris Hartcher defended his government's introduction of tough new CSG regulations at a speech to the Plenary Session of the APPEA 2013 Conference in Brisbane. Minister Hartcher said that the government was forced to introduce the new policies, including a two-kilometre exclusion zone around residential land and towns, because the CSG industry had failed to engage in the early stages of the community debate about CSG and had allowed that debate to be dominated by the extremist Greens. To maintain the industries' social licence to operate the government had to introduce the tougher regulations, Minister Hartcher said. He went on to say that many in the anti-CSG lobby are against the use of all fossil fuels and will not respond to any concessions. Since Premier Barry O'Farrell announced the new regulations in February three companies have suspended all their CSG exploration and appraisal programs in the state and the proposed expansion of the only commercially producing CSG field has been cancelled. The latest company to pull out of the state is explorer Planet Gas.

Planet Gas

14 MAY: Planet Gas announced that it would withdraw from its New South Wales CSG business following the O'Farrell Government's tightened regulations for the industry. The company had agreed to farm-in to earn a 50% interest in two Sydney Basin and one Gunnedah Basin tenements held by Leichardt Resources. The companies have now agreed to cancel the farm-in agreements. The tenements concerned are PELs 468, 469 and 470. Planet Gas's main focus is now its acreage on the western flank Cooper Basin with Senex Energy having farmed-in to earn an 80% interest in PEL 514.

GAS PRICES

AGL Energy

31 MAY: AGL Energy reported that it expects a significant increase in the Eastern Australian gas price due to the development of the CSG-to-LNG industry. The company is already in arbitration with a number of its gas suppliers who are attempting to increase prices. AGL expects prices to be highest in Queensland and New South Wales with the effects spreading to southern states. As LNG export prices will be linked to the US dollar oil price the company expects these markets to influence domestic gas prices and will use hedging to attempt to counter negative effects. AGL also expects increased gas prices will see less gas fire generation of electricity. The company's tracking of spot gas prices in Eastern Australian markets has seen a significant increase in the past few years.

Gas Spot Prices in Eastern Australia

Source: AGL Energy 31/5/2013

EXPLORATION AND APPRAISAL

Exoma Energy

31 MAY: Exoma Energy advised that it had withdrawn its application for four new exploration permits in Queensland. The permits are located in the Eromanga and Galilee Basins with the company awarded preferred tenderer status for the acreage by the Queensland Government a year ago. Exoma has withdrawn its applications for the tenements following a technical and commercial review undertaken with its JV partner CNOOC. The companies have determined that their existing five Galilee Basin tenements are not prospective for large scale CSG production or unconventional hydrocarbon production from the Toolebuc Shales; these plays were also to be the exploration targets in the new tenements.

Senex Energy

15 MAY: Senex Energy reported that it had discovered a large new tight gas field within a large stratigraphic trap in the Cooper Basin. The company estimates the Hornet Field holds a 1C contingent resource of 176 bcf and a best estimate prospective resource net to itself of 771 bcf. The resource is within the Permian Formation at an average depth of 2,500 m with the field located in the Mettika Embayment in the Southern Cooper Basin, less than 30 kilometres from the Moomba to Sydney gas pipeline. Senex has drilled two wells on the field, with the Hornet-1 well flow-tested at 2.2 MMscf/day for five days last month, after a five stage fracture stimulation across the Patchawarra. The Hornet Field is located in PEL 115 in which Senex holds an 80% stake and Orca Energy has 20% and in Senex's wholly-owned PEL 516 and extends into a number of tenements held by the SACBJV. Senex plans to start an appraisal program on the field in the September Quarter of this year.

Empire Oil and Gas

14 MAY: Empire Oil and Gas announced that RPS Energy Services had determined that the company's onshore Perth Basin tenements may hold large unconventional oil and gas resources. Empire holds between 88% and 47% interests in the five relevant tenements, with minority stakes held by ERM Power and Norwest Energy. Earlier this year Empire engaged Macquarie Capital to advise on potential basin wide farm-outs of its eleven Perth Basin tenements as well as its thirteen Carnarvon Basin tenements. RPS has evaluated several of the Perth Basin permits as having large unrisked, undiscovered gas-in-place and oil-in-place potential.

Empire Oil and Gas Perth Basin Unconventional Assessment:

Tenement	Reservoir	Potential Hydrocarbons*
EP 368 and EP 426	Irwin River Coal Measures	32 tcf of gas-in-place
EP 389 and EP 440	Lower Cattamarra Coal Measures	60 tcf gas-in-place
EP 454	Cattamarra Coal Measures	14b bbl oil-in-place

**unrisked, undiscovered potential volume.*

Armour Energy

13 MAY: Armour Energy advised that it had spudded the Egilabria-2 exploration well in ATP 1087P in the South Nicholson Basin. The well, located some 50 km southwest of Burketown, will target shales within the Lawn Hill Formation. Armour plans to drill Egilabria-2 to a depth of 1,750 m before drilling a 600 m lateral section; the well will then be fracture stimulated across six stages and flow-tested, commencing in July.

Beach Energy

13 MAY: Beach Energy reported that the first stage of Chevron's farm-in to its Nappamerri Trough tenements had been completed and that it had received US$95m ($91.3m) in cash as a result. Chevron now has a 30% interest in PEL 218 in the South Australian section of the Nappamerri (Beach 70%) and 18% of ATP 855P across the border to the east in Queensland (Beach 42%, Icon 40%). The oil major can increase its interest in the tenements to 60% and 36% respectively if it chooses to complete two stages of the farm-in and invest a total of US$349m. Beach is continuing its extensive appraisal program of the Nappamerri and plans to fracture stimulate and flow-test Holdfast-2, the first horizontal well drilled in the play, later this year.

EASTERN AUSTRALIA CONVENTIONAL NATURAL GAS RESERVES AT 31 DECEMBER 2012

RLMS has undertaken a compilation of the conventional natural gas reserves and resources for Eastern Australia at 31 December 2012. The information on the gas reserves and resources has been compiled from ASX releases by companies, company presentations and brochures and information provided by Government agencies. The conventional gas reserves resources at 31 December 2012 have been collated on a company as well as on a sedimentary basin basis.

Conventional natural gas is that recovered from sandstone, carbonate or shale reservoirs either as methane and ethane with associated heavier hydrocarbons or as a co-product recovered from liquid petroleum production. The natural gas is normally treated to recover ethane, LPG and condensates as well as for the removal of sulphur compounds and inerts such as carbon dioxide and sometimes nitrogen. The gas is dried to remove water before being sent to market. Conventional natural gas does not include methane recovered from coal measures such as coal seam gas, coal mine methane or biogas. However gas reserves and contingent resources from other forms of unconventional gas such as tight gas from low permeability conventional sandstone or carbonate reservoirs and carbonaceous shales have been included in this analysis. Unconventional tight gas from deep coals has also been included in this analysis as it is usually reported along with, or aggregated, with those reported for tight conventional reservoirs and carbonaceous shales (shale gas).

Most companies and Government agencies only report 2P (proved plus probable) gas reserves. There is generally limited public information available on 1P and 3P reserves or on contingent resources though in recent years, more companies are announcing their independently certified contingent resource numbers, mostly as 2C contingent resources. Where they are published, they have been included in this analysis. The reserve and resource numbers used in this compilation are those meeting the criteria of the Petroleum Resource Management System (PRMS) of the Society of Petroleum Engineers Inc. The reserves are reported in Petajoules (PJ). Where companies have reported reserves in standard cubic feet, they have been converted from a volumetric to an energy basis where one billion cubic feet (1 Bcf) equals 1.05 PJ. Where gas reserves and resources have been reported in barrels of oil equivalent (boe) units, the conversion factor of 6.15 PJ equalling one million boe or mmboe has been used.

Eastern Australia for this compilation relates to Queensland, New South Wales, Victoria, South Australia and Tasmania. These states are interconnected through the eastern Australian pipeline grid. Both onshore and offshore gas reserves and resources are included.

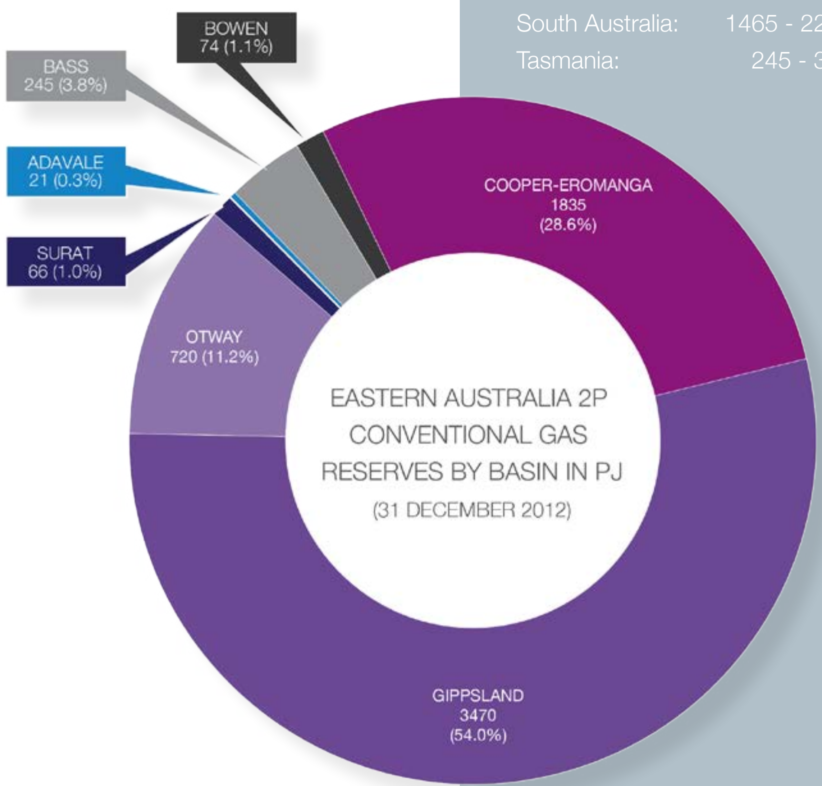
The estimates of the 2P reserves of natural gas within conventional gas reservoirs by Basin at 31 December 2012 are given in the following table and graph.

Eastern Australia 2P Reserves for Conventional Natural Gas by Basin in PJ at 31 December 2012

Basin	2P Reserves	Percentage
Adavale	21	0.3
Bass	245	3.8
Bowen	74	1.1
Cooper-Eromanga	1,835	28.6
Gippsland	3,470	54.0
Gunnedah	0	-
Otway	720	11.2
Surat	66	1.0
Total	6,431	100.0

Total Reserves: 6,431 PJ

Queensland:	531 - 8.3%
Victoria:	4190 - 65.1%
South Australia:	1465 - 22.8%
Tasmania:	245 - 3.8%

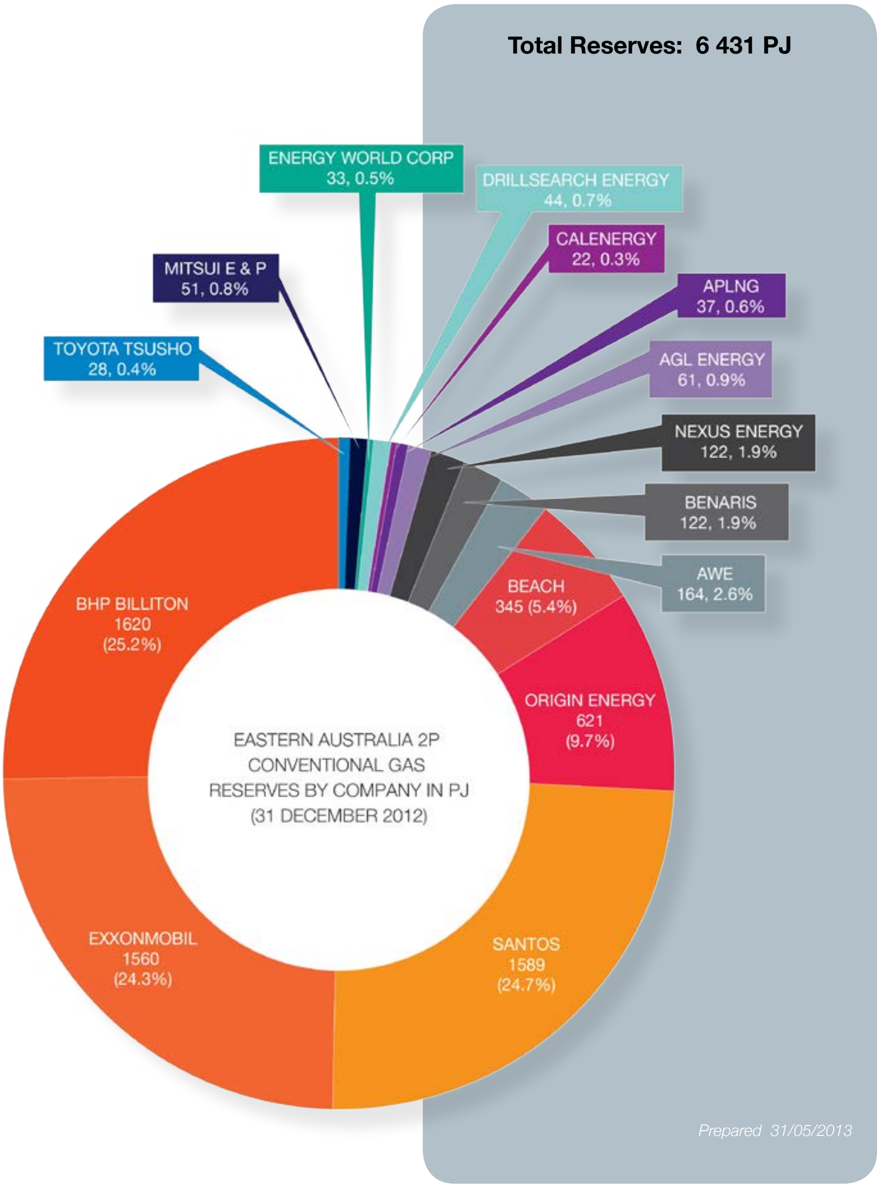


Prepared 31/05/2013

Details of the 2P conventional gas reserves by Company are provided in the following table and graph.

Eastern Australia Conventional Natural Gas Reserves and Resources by Company in PJ at 31 December 2012

Company	2P Reserves	2C Resources
AGL Energy	61	-
APLNG	37	-
AWE	164	192
Beach Energy	345	2,533
Benaris	122	
BHP Billiton	1,620	
CalEnergy	22	
Drillsearch Energy	44	36
Energy World Corp	33	-
ExxonMobil	1,560	
Mitsui E & P	51	29
Nexus Energy	122	102
Origin Energy	621	159
Santos	1,589	2,345
Toyota Tsusho	28	40
Others	12	1,243
Total	6,431	6679



The following table outlines the 2P conventional natural gas reserves by State.

Eastern Australia Conventional Natural Gas 2P Reserves by State in PJ at 31 December 2012

State	2P Reserves	Percentage
Queensland	531	8.3
New South Wales	-	-
Victoria	4,190	65.1
South Australia	1,465	22.8
Tasmania	245	3.8
Total	6,431	100.0

EASTERN AUSTRALIA CSG:

Reserves at 31 December 2012, production March Quarter 2013 Averages

Field	Ownership	State	Basin	Reserves (PJ)			Production (TJ/day)	Tenure
				1P	2P	3P		
AGL ENERGY								
Camden Gas Project	AGL Energy* 100%	NSW	Sydney	53	142	189	16	PPLs 1, 2, 4, 5; PELs 2, 4, 5, 267
Gloucester Basin Project	AGL Energy* 100%	NSW	Gloucester	15	669	832		PEL 285
Hunter Gas Project	AGL Energy* 100%	NSW	Sydney		142	271		PELs 4,267
Total for AGL Energy including projects operated by others				**236**	**2,970**	**3,961**	**32**	
ARROW ENERGY								
100% ownership of Arrow Energy LNG project								
Total for Arrow Energy				**617**	**5,902**	**11,226**	**79**	
BG GROUP								
94% ownership of QCLNG project operator								
Total for BG Group including projects operated by others				**2,070**	**7,600**		**150**	
BLUE ENERGY								
Sapphire Field	Blue Energy* 100%	Qld	Bowen			75		ATP 814P
Total for Blue Energy						**75**		
METGASCO								
Casino Gas Project	Metgasco 100%	NSW	Clarence-Moreton	3	428	2,542		PEL 13, 16
Total for Metgasco				**3**	**428**	**2,542**		
MOLOPO								
Mungi/Harcourt Lilyvale	Molopo*72% Mitsui 28%	QLD	Bowen	33	419	995	3	PL 94, ATP 56 4P
Timmy	Molopo*62.9% Mitsui 37.1%	QLD	Bowen	0	67	175		ATP 602P
Total for Molopo				**24**	**343**	**824**	**3**	
ORIGIN ENERGY								
37.5% ownership of APLNG and project upstream operator								
Ironbark Project	Origin 100%				178	889		ATP 788P
Total for Origin Energy including projects operated by others				**649**	**5,089**	**6,886**	**128**	
SANTOS								
30% ownership of GLNG and project operator								
Narrabri CSG Project	Santos* 80% TRUenergy 20%	NSW	Gunnedah	115	1,520	2,797		PEL 238
Total for Santos including projects operated by others				**631**	**2,829**	**4,285**	**125**	
RED SKY ENERGY								
Clarence-Moreton	Red Sky *30% Clarence-Moreton Resources 70%	NSW	Clarence-Moreton			179		PEL 457
Total for Red Sky Energy						**54**		
SENEX ENERGY								
Don Juan CSG Project	Senex Energy* 45%, Arrow Energy 55%	Qld	Surat		101	197		ATP 771P
Total for Senex Energy including projects operated by others				**0**	**157**	**358**		
WESTSIDE CORPORATION								
Meridan	Westside* 51% Mitsui 49%	QLD	Bowen	93	680	1,524	8	PL 94, Coal Mining Leases
Paranui	Westside* 25.5% Mitsui 24.5% BG 50%	QLD	Bowen			270		ATP 769 W
Tibrook	Westside* 25.5% Mitsui 24.5% BG 50%	QLD	Bowen			152		ATP 688P W
Total for Westside				**47**	**347**	**885**	**4**	

QUEENSLAND CSG-TO-LNG PROJECTS:

APLNG (AUSTRALIA PACIFIC LNG PROJECT)

Ownership:	Origin Energy 37.5% / ConocoPhillips 37.5% / Sinopec 25%	**Site:**	Laird Point, Curtis Island
Operatorship:	Upstream and pipelines: Origin / LNG: ConocoPhillips	**Customers:**	Sinopec 7.6 MTPA for 20 years, Kansai 1.0 MTPA for 20 years
Status:	FID Train 1: July 2011 FID Train 2: July 2012	**Reserves:**	2P: 13,073 PJ 3P: 15,993 PJ 2C: 3,825 PJ 3C: 9,829 PJ
Size:	2 x 4.5 MTPA LNG trains (four-train 18 MTPA ultimate potential)	**Production:**	301 TJ/day (110 PJ/year)

Major Fields	Ownership	State	Basin	Reserves (PJ)			Production (TJ/day)
				1P	2P	3P	
Spring Gully	APLNG* 96.6% Santos 3.4%	Qld	Bowen				113
Peat	APLNG* 100%	Qld	Bowen				6
Talinga/Orana	APLNG* 100%	Qld	Surat				94

ARROW ENERGY (ARROW ENERGY LNG PROJECT)

Ownership:	Shell 50% / PetroChina 50%	**Site:**	Boatshed Point, Curtis Island
Operatorship:	Arrow Energy	**Customers:**	None announced
Status:	EIS currently being undertaken	**Reserves:**	1P: 617 PJ 2P: 5,902 PJ 3P: 11,226 PJ
Size:	2 x 4 MTPA LNG trains (four-train 16 MTPA ultimate potential)	**Production:**	79 TJ/day (28.8 PJ/year)

Major Fields	Ownership	State	Basin	Reserves (PJ)			Production (TJ/day)
				1P	2P	3P	
Moranbah Gas Project	Arrow Energy* 50% AGL Energy 50%	Qld	Bowen	336	2,288	5,104	49
Blackwater	Arrow Energy* 100%	Qld	Bowen		148	1,609	
Comet	Arrow Energy* 100%	Qld	Bowen		0	871	
Norwich Park	Arrow Energy* 100%	Qld	Bowen		35	163	
Surat Basin Fields	Arrow Energy* 50%-100%	Qld	Surat	472	4,648	6,375	
Tipton West JV	Arrow Energy* 100%	Qld	Surat				29
Kogan North	Arrow Energy* CS Energy 50%	Qld	Surat				11
Daandine	Arrow Energy* 100%	Qld	Surat				20

GLNG (GLADSTONE LNG PROJECT)

Ownership:	Santos 30% / PETRONAS 27.5% / Total 27.5% / KOGAS 15%	**Site:**	Hamilton Point West, Curtis Island
Operatorship:	Santos	**Customers:**	PETRONAS and KOGAS both to take 3.5 MTPA for 20 years
Status:	FID taken January 2011, first LNG 2015	**Reserves:**	1P: 1,797 PJ 2P: 5,376 PJ 2C: 1,638 PJ
Size:	2 x 3.9 MTPA LNG trains (three-train 10 MTPA ultimate potential)	**Production:**	125 TJ/day (45.6 PJ/year)

Major Fields	Ownership	State	Basin	Reserves (PJ)			Production (TJ/day)
				1P	2P	3P	
Fairview	GLNG* 76.07% APLNG 23.93%	Qld	Bowen				108
Scotia	GLNG* 100%	Qld	Bowen				27
Arcadia	GLNG* 100%	Qld	Bowen				
Roma Shelf	GLNG* 100%	Qld	Surat				

QCLNG (QUEENSLAND CURTIS LNG PROJECT)

Ownership:	BG Group 90% Train 1 and 97.5% Train 2 / CNOOC 10% Train 1 / Tokyo Gas 2.5% Train 2	**Site:**	North China Bay, Curtis Island
Operatorship:	QGC (100%-owned subsidiary of BG Group)	**Customers:**	CNOOC 3.6 MTPA from Train 1 for 20 years, Tokyo Gas 1.2 MTPA from Train 2 for 20 years, Chubu Electric up to 20 cargoes over 20 years, BG portfolio supply: up to 1.7 MTPA to Quintero LNG in Chile to 2030, up to 3.0 MTPA to Singapore for 20 years
Status:	FID taken October 2010, first LNG 2014, second train to start-up a year later	**Reserves:**	1P: 3,030 PJ 2P: 10,350 PJ Discovered resources: 7,420 PJ
Size:	2 x 4.25 MTPA LNG trains (three-train 12.75 MTPA ultimate potential)	**Production:**	150 TJ/day (54.8 PJ/year)

Major Fields	Ownership	State	Basin	Reserves (PJ)			Production (TJ/day)
				1P	2P	3P	
QGC Central Walloons	BG* 59.4%-100%	Qld	Surat				130
Berwyndale South	BG* 100%	Qld	Surat				
Kenya-Argyle	BG* 59.4% Origin 40.6%	Qld	Surat				82
Woleebee Creek	BG* 80% Toyota 15% CNOOC 4% Tokyo Gas 1%	Qld	Surat	26	275	837	
Lacerta	BG* 100%	Qld	Surat	44	469	1,097	
Cameron	BG* 100%	Qld	Surat		522	1,279	
Paradise Downs	BG* 80% VicPet 20%	Qld	Surat	0	38	449	
Lawton	BG* 70% VicPet 30%	Qld	Surat	0	88	234	