



# QUARTERLY REPORT

FOR THE PERIOD ENDED  
31 DECEMBER 2014



carbon**energy**

# CARBON ENERGY LIMITED

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 DECEMBER 2014

ABN 56 057 552 137

ASX Code: CNX OTCQX Code: CNXAY

### KEY EVENTS

- The Rehabilitation Plan for the Bloodwood Creek Trial was submitted to the Queensland Government on 1 October 2014. This was the final step in the process to meet the recommendations of the Independent Scientific Panel (ISP) appointed by the Queensland Government to assess the underground coal gasification (UCG) pilot trials in Queensland.
- The Rehabilitation Plan, together with the Decommissioning Report submitted in August 2014, demonstrates Carbon Energy's gas production technology is safe, effective, highly controlled and minimises impact on groundwater volumes and quality. The Department of Environment and Heritage Protection (DEHP) also advised Carbon Energy at the end of 2014 that the consultants appointed to review the Decommissioning Report and Rehabilitation Plan had completed their review and submitted its report to the Department.
- An independent expert valuation of our Surat Basin gas assets concluded that the assets had a preferred value of \$205m on a fully risked basis at that time<sup>1</sup>.
- During the Quarter the Company completed a Share Placement Plan (SPP). The SPP closed on 23 October 2014 and raised \$2.5 million before offer costs.

### SUBSEQUENT TO THE END OF THE QUARTER

- Carbon Energy secured a \$1.2 million R&D tax offset financing facility with Macquarie Bank Limited.

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<sup>1</sup> Refer to the *Basis of Valuation* attached to this report for disclosure regarding the valuation.

## STRATEGIC UPDATE

During the Quarter Carbon Energy has made significant progress towards achieving the Company's strategic objectives that were outlined in the 2014 Annual Report.

### PRIORITY 1: TRANSITION TO STANDARD APPROVAL PROCESS & COMMENCE EIS

The submission of the Rehabilitation Plan to DEHP on 1 October 2014 marked the final step in satisfying the recommendations set out by the Queensland Government appointed ISP. This included detailed further requests for information from DEHP and its technical consultants.

The Plan followed the submission of the Decommissioning Plan in the previous Quarter (August 2014).

The rigorous ISP process to prove the Company's gas technology has provided comprehensive and scientifically assessed confirmation of the operational and environmental credentials Carbon Energy's process provides. These results include:

1. **Safe and effective operation** – demonstrated safe & effective operation and independently verified production of syngas with world leading quality and consistency;
2. **Highly controlled process** – Gasification was shown to have ceased within 48 hours of ceasing air injection, confirming control of the decommissioning process in line with expectations; and
3. **No impact on regional use of groundwater** – Site investigations has proven the keyseam UCG technology could be operated without impact on the regional use of groundwater.

Just prior to the end of the Quarter the Company was advised that the DEHP appointed consultant review of both submissions had been completed. The Government now has all information required to make a decision on the Company's intention to commence the Environmental Impact Study (EIS) to progress the development of the Blue Gum Gas Project. We expect the Government to progress its assessment following the 31 January 2015 Queensland State Election.

### PRIORITY 2: DEVELOPMENT OF BLUE GUM GAS PROJECT

Following the Queensland State Election and pending the conclusion of Government review of the Company's technology, the next steps in progressing the Blue Gum Gas Project are expected to be the submission of an Initial Advice Statement (IAS) followed by an Environmental Impact Statement (EIS).

The IAS has been substantially completed during the Quarter and the Company is poised and ready to submit the IAS pending a favourable Government decision following the election.

## **Project Background**

Subject to a favourable decision from Government, the Company is working to establish partnerships for its first commercial scale gas development, the Blue Gum Gas Project. The Project is planned for development on MDL374 and freehold land owned by the Company in the Surat Basin. The Blue Gum Gas Project is intended to deliver 25PJ per annum of pipeline quality natural gas. It is anticipated that first gas could be supplied to local industry three years from finding suitable investment partners and commencement of the EIS process.

## **PRIORITY 3: FURTHER LICENSING PROJECTS ACROSS AUSTRALIA AND INTERNATIONALLY**

During the Quarter, the Company continued to pursue existing licensing opportunities as well as identified further opportunities to be developed as the Company markets the strong environmental credentials established from the Bloodwood Creek trial.

## **EXISTING INTERNATIONAL OPPORTUNITIES**

### **China**

No further payments have been received from the client (Haoqin Mining) during the Quarter. The Company will commence further work on receipt of payment for completed packages and the first milestone payment relating to the commencement of the remaining packages. We continue to negotiate options and are hopeful a solution can be achieved in the future.

### **Chile**

Carbon Energy continued discussions with potential investors, through its advisors BHD Capital, in the Mulpun UCG Project in Chile, South America during the Quarter.

## CARBON ENERGY GAS RESERVES & RESOURCES

Area	Reserve and Resource Classification	Gross (100%) Syngas Energy (PJ)	Gross (100%) SNG Energy (PJ)
<b>MDL374</b>	1P Reserves	11.0	7.1
	2P Reserves	1,737.9	1,128.5
	3P Reserves	2,512.4	1,631.5
<b>EPC867</b>	3P Reserves	5,650.0	3,668.9
	2C Contingent Res	7,734.3	5,022.3
<b>EPC869</b>	2C Contingent Res	4,150.3	2,695.0
<b>EPC1132</b>	2C Contingent Res	1,220.1	792.3

Notes to the above table:

- 1P Reserves = Proved
- 2P Reserves = Proved + Probable
- 3P Reserves = Proved + Probable + Possible

All Reserve and Resource estimates (Estimates) in this document are reported in accordance with the requirements of ASX Listing Rules 5.25 to 5.28. It is noted in particular that:

- (a) This document refers to Estimates reported on 19 September 2014 and released to the market on 22 September 2014 (Updated Reserves Statement);
- (b) All Estimates are based on the deterministic method for estimation of petroleum resources at the field and project levels and are attributable to the gross (100 percent) ownership interest of Carbon Energy in certain coal properties located in MDL374, EPC867, EPC869 and EPC1132 located in the Surat Basin of Queensland, Australia;
- (c) All Estimates are reported using the following conversion factors as relevant:
  - (i) UCG Energy conversion factor is 16.73 GJ of syngas per tonne of coal gasified;
  - (ii) UCG syngas to Synthetic Natural Gas (SNG) conversion factor is 38.5 to 25;
  - (iii) 1,055 Petajoule (PJ) = 1 Trillion cubic feet (Tcf); and
  - (iv) 1 barrel of oil equivalent (boe) = 6,000 cubic feet.

Further, for the purposes of ASX Listing Rule 5.43, Carbon Energy confirms that it is not aware of any new information or data that materially affects the information included in the 22 September 2014 Updated Reserves Statement and that all material assumptions and technical parameters underpinning the estimates in the Updated Reserves Statement continue to apply and have not materially changed.

## TENEMENT STATUS AT 31 DECEMBER 2014

Tenement	Status	Area km <sup>2</sup>
MDL374	Renewal Pending	28.68
MLa50253	Application Pending	13.43
PFL 6	Granted	0.03

Tenement	Status	As at 30 June 2014 Sub-Blocks	Area km <sup>2</sup>
EPC867	Renewal Pending	167	509.56
EPC868	Renewal Pending	96	291.57
EPC869	Granted	63	192.53
EPC1132	Granted	23	70.28
<b>Total Eastern Surat Basin Tenements</b>		<b>349</b>	<b>1,063.94</b>

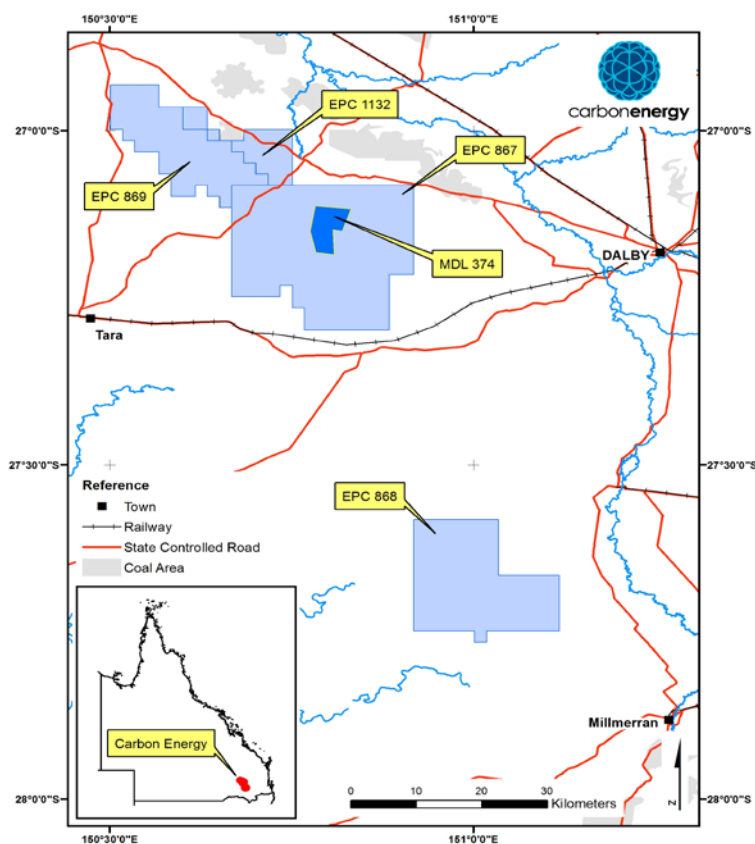


Figure 1 Carbon Energy Coal Tenure Surat Basin

## CORPORATE

### CASH MANAGEMENT

During the Quarter the Company completed a Share Placement Plan (SPP). The SPP closed on 23 October 2014 and raised \$2.5 million before offer costs.

Following the end of the Quarter, the Company commenced implementation of a strategy to mitigate the impact of the delay in the Queensland Government review process (pending the 31 January 2015 State election) on our cash reserves. This cash management strategy includes a voluntary short term reduction in Executive salary costs (whilst the strong management team remains in place), reduction in staff costs generally, limiting use of external contractors, and the reinforcement of a cost conscious culture.

With much of the preparation work for the Blue Gum Gas Project IAS already complete, we continue to remain focused primarily on international business development and pursuit of project investment and off-take partners for the Blue Gum Gas Project in the lead up to the Queensland State Election.

The result is an anticipated reduction in costs by an estimated \$900k for the coming Quarter.

Subsequent to the end of the Quarter the Company secured a \$1.2 million loan facility with Macquarie Bank Limited. The facility provides the Company with the ability to drawdown up to \$1.2 million to assist in funding its working capital requirements prior to receipt of the FY2015 ATO R&D Rebate.

At the date of this report the Company will have access to approximately \$4.0 million of cash.

## CONTRACTUAL MATTERS

### SUMMA SHARE SALE AGREEMENT

Carbon Energy maintains its position announced on 30 May 2013 that project financial milestones under the Agreement with Summa were not able to be achieved.<sup>2</sup> Carbon Energy maintains it is not obliged to issue further tranches of shares to Summa nor is it required to reserve those shares. Without prejudice discussions between representatives from both parties have to date failed to bring the matter to a close.

For and behalf of the Board



**Morné Engelbrecht**  
Chief Executive Officer & Managing Director  
29 January 2015

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<sup>2</sup> See ASX Announcement 23 February 2011.

## ISSUED CAPITAL

As at 31 December 2014

### ORDINARY SHARES

1,336,534,770 shares

### OPTIONS - LISTED

443,696,404 Listed options exercisable at \$0.06 and expiring 31 July 2016

### OPTIONS – UNLISTED:

61,728,395 Unlisted Credit Suisse options

44,645,845 Unlisted Pacific Road Capital Convertible Note options

86,327,484 Unlisted current CNX management options

## SHAREHOLDERS

As at 31 December 2014

### ORDINARY SHARES:

5,726 Shareholders

Top 20 Shareholders hold 48.68% of listed shares

Major Shareholders (more than 5% holding):

1.	Kam Lung Investment Development Company Limited	12.86%
2.	Pacific Road Capital	8.54%
3.	CitiCorp Nominees Pty Ltd	6.18%
4.	Incitec Pivot Ltd	5.65%

### OPTIONS – LISTED (EXERCISABLE AT \$0.06 EXPIRING 31 JULY 2016):

1,291 Listed Option Holders

Top 20 Listed Option Holders hold 69.64% of listed options

Top 5 Listed Option Holders:

1.	Kam Lung Investment Development Company Limited	38.72%
2.	Citicorp Nominees Pty Limited	11.34%
3.	Archfield Holdings Pty Ltd	2.61%
4.	JP Morgan Nominees Australia Ltd	1.92%
5.	Jetosea Pty Ltd	1.44%



## BOARD OF DIRECTORS & MANAGEMENT

### BOARD OF DIRECTORS

Dr Chris Rawlings	Non-Executive Chairman
Mr Morné Engelbrecht	Chief Executive Officer & Managing Director
Mr Max Cozijn	Non-Executive Director
Dr Helen Garnett	Non-Executive Director
Mr Peter Hogan	Non-Executive Director
Mr Louis Rozman	Non-Executive Director

### EXECUTIVE MANAGEMENT

Mr Morné Engelbrecht	Chief Executive Officer & Managing Director
Ms Catherine Costello	Chief Financial Officer
Dr Cliff Mallett	Technical Director
Mrs Tracy Bragg	General Counsel & Company Secretary
Mr Justin Haines	General Manager Technical Services
Mr Terry Moore	General Manager Operations

## MINING EXPLORATION ENTITY QUARTERLY REPORT

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13

Name of entity

CARBON ENERGY LIMITED

ABN

56 057 552 137

Quarter ended ("current quarter")

31 December 2014

## CONSOLIDATED STATEMENT OF CASH FLOWS

Cash flows related to operating activities	Current Quarter \$A'000	Year to date \$A'000
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for		
(a) Exploration & Evaluation	(49)	(171)
(b) BWC Site Operating & Maintenance Costs & Technical Services & Rehabilitation Drilling	(1,123)	(2,640)
(c) Production	-	-
(d) Corporate, Commercial, New Business & Administration	(919)	(1,822)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	13	46
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)	21	3,720
Government grants: Research & Development rebate &		
<b>Net Operating Cash Flows</b>	<b>(2,057)</b>	<b>(867)</b>

	<b>Cash flows related to investing activities</b>		
1.8	Payment for purchases of:		
	(a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	(4)	(7)
1.9	Proceeds from sale of:		
	(a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	(226)	(226)
	Exploration & evaluation costs, trademarks		
	<b>Net investing cash flows</b>	<b>(230)</b>	<b>(233)</b>
1.13	Total operating and investing cash flows	(2,287)	(1,101)
	<b>Cash flows related to financing activities</b>		
1.14	Proceeds from issues of shares and options	2,566	2,566
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from short term loan facility		1,500
1.17	Repayment of short term loan facility		(1,500)
1.18	Term facility costs		(103)
1.19	Capital raising costs	(239)	(239)
	<b>Net financing cash flows</b>	<b>2,328</b>	<b>2,224</b>
	<b>Net (decrease) / increase in cash held</b>	<b>41</b>	<b>1,124</b>
1.20	Cash at beginning of quarter/year to date	3,470	2,387
1.21	Exchange rate adjustments to item 1.20		-
1.22	<b>Cash at end of quarter</b>	<b>3,511</b>	<b>3,511</b>

## PAYMENTS TO DIRECTORS OF THE ENTITY, ASSOCIATES OF THE DIRECTORS, RELATED ENTITIES OF THE ENTITY AND ASSOCIATES OF THE RELATED ENTITIES

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	218
1.24	Aggregate amount of loans to the parties included in item 1.10	-
1.25	Explanation necessary for an understanding of the transactions	
	Costs included in item 1.23 above relate to Directors' fees and superannuation.	

## NON-CASH FINANCING AND INVESTING ACTIVITIES

- 2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Issue of 2,838,455 Ordinary Shares to cover the interest costs, payable 3 months in arrears, in relation to the Facility utilised under the \$10 million Pacific Road Convertible Note Facility Agreement. These shares are issued in accordance with ASX Listing Rule 7.

- 2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

N/a

## FINANCING FACILITIES AVAILABLE

*Add notes as necessary for an understanding of the position.*

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities (Pac Road Convertible Note Facility)	10,000	10,000
3.2	Credit standby arrangements	344	235

## ESTIMATED CASH OUTFLOWS FOR NEXT QUARTER

		\$A'000
4.1	Exploration and evaluation	77
4.2	BWC Site Operating & Maintenance Costs & Technical Services & Rehabilitation Drilling	588
4.3	Production	-
4.4	Corporate, Commercial, New Business & Administration	934
<b>Total</b>		<b>1,599</b>

## RECONCILIATION OF CASH

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

		Current Quarter \$A'000	Previous Quarter \$A'000
5.1	Cash on hand and at bank	77	70
5.2	Deposits at call	3,434	3,400
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>		<b>3,511</b>	<b>3,470</b>

## CHANGES IN INTERESTS IN MINING TENEMENTS

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed	-	-	-
6.2	Interests in mining tenements acquired or increased	-	-	-

## ISSUED AND QUOTED SECURITIES AT END OF CURRENT QUARTER

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference +securities</b> (description)	-	-	-	-
7.2 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through returns of capital, buy-backs, redemptions	-	-	-	-
7.3 <b>+Ordinary securities</b>	1,336,534,770	1,336,534,770	Various	Fully paid
7.4 Changes during quarter				
(a) Increases through issues:				
Share Purchase Plan	50,344,305	50,344,305	\$0.05	Fully paid
Executive Incentive Plan	10,033,239	10,033,239	Nil	Fully paid
Interest on Convertible Note	2,838,455	2,838,455	\$0.0444	Fully paid
Exercise of listed options	12,000	12,000	\$0.06	Fully paid
Exercise of unlisted options	1,092,843	1,092,843	\$0.026	Fully paid
Exercise of unlisted options	657,887	657,887	\$0.0301	Fully paid
(b) Decreases through returns of capital, buy-backs	-	-	-	-
7.5 <b>+Convertible debt securities</b> (description)	Pacific Road Capital \$10 million Convertible Note Facility issued 5 January 2012 and repayable on 18 January 2017 with 5% interest payable quarterly in arrears in Company shares.			
7.6 Changes during quarter				
(a) Increases through issues	-	-	-	-
(b) Decreases through securities matured, converted	-	-	-	-
7.7 <b>Options</b>			Exercise Price	Expiry Date
Unlisted Options \$0.0610	61,728,395	-	\$0.0610	15/11/2015
Unlisted Options \$0.0610	9,645,845	-	\$0.0610	15/11/2015
Unlisted Options \$0.12	3,084,000	-	\$0.12	31/12/2015
Listed Options \$0.06	443,696,404	443,696,404	\$0.06	31/07/2016
Unlisted Options \$0.026	7,081,738	-	\$0.026	15/10/2016
Unlisted Options \$0.1678	7,000,000	-	\$0.1678	18/01/2017
Unlisted Options \$0.1678	28,000,000	-	\$0.1678	25/02/2017
Unlisted Options \$0.0301	9,495,080	-	\$0.0301	25/08/2017
Unlisted Options \$0.06	33,333,333	-	\$0.06	30/06/2018
Unlisted Options \$0.06	33,333,333	-	\$0.06	30/06/2019

7.8	Issued during quarter				
	Unlisted Options \$0.0301	4,807,879	-	\$0.0301	25/08/2017
	Unlisted Options \$0.0301	5,541,564	-	\$0.0301	25/08/2017
7.9	Exercised during quarter				
	Unlisted Options \$0.026	1,092,843	-	\$0.026	15/10/2016
	Unlisted Options \$0.0301	657,887	-	\$0.0301	25/08/2017
	Listed Options \$0.06	2,000	2,000	\$0.06	31/07/2016
	Listed Options \$0.06	10,000	10,000	\$0.06	31/07/2016
7.10	Expired during quarter				
	Unlisted Options \$1.00	10,000,000	-	\$1.00	10/12/2014
7.11	<b>Debentures</b> <i>(totals only)</i>	-	-		
7.12	<b>Unsecured notes</b> <i>(totals only)</i>	-	-		

## COMPLIANCE STATEMENT

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX.
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here:

Date: 29 January 2015  
Name: Catherine Costello  
Title: Chief Financial Officer

# Basis of Valuation

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Xstract Mining Consultants Pty Ltd (Xstract) provided the "Eastern Surat Syngas Reserves Independent Valuation" (the Report) to Carbon Energy Ltd on 15 October 2014. Carbon Energy's wholly owned Eastern Surat Syngas Reserves in the Surat Basin, Queensland, form the reserve base underpinning the Blue Gum Gas Project (the Project). This Basis of Valuation provides a summary of the key methodologies used and risks identified in the Report.

The information in the Report is deemed commercially sensitive as the Company has not received the requisite approvals from the Queensland government to commence the Project. This impacts on the negotiations underway to secure off-take agreements and investment funding for the Project.

## **Valuation methodology**

To arrive at the valuation Xstract applied a number of valuation methods outlined in the 2005 edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (VALMIN).

Xstract relied heavily on transaction market multiples and comparable transaction data however had to make adjustments for the Company's Keyseam technology against other extractive technologies. The factors taken into account are listed below:

- Comparable energy recovery to conventional coal mining without the need to transport inert ash;
- Around 50 times greater energy recovery per square kilometre than CSG;
- Produces gas which is raw material for a wide range of saleable products;
- Does not impact on regional water quantity or quality;
- Accesses coal resources otherwise not commercially viable;
- Very small extractive area;
- Utilises off-the-shelf enabling technologies such as gas & water processing;
- Project is near to all required major infrastructure e.g. natural gas pipelines to ready markets, power lines, roads, skilled workforce;
- Negligible remediation costs;
- Queensland Government approvals process for UCG technology is in development;
- Emerging technology may be difficult to fund;
- Emerging technology may be difficult to gain social licence;
- Up-front capital costs;
- Project timeline dependent upon policy and approvals process; and
- Constraints with existing resource holders.



## Reserves

Xstract used the Reserves detailed in Carbon Energy's ASX announcement dated 19 September 2014 as the basis for Reserves underpinning the financial assessment presented in the Report.

<b>Permits</b>	<b>Category</b>	<b>Gross (100%) Syngas Energy (PJ)</b>	<b>Gross (100%) SNG Energy (PJ)</b>
<b>MDL374</b>	1P Reserves	11.0	7.1
	2P Reserves	1,737.9	1,128.5
	3P Reserves	2,512.4	1,631.5
<b>EPC867</b>	3P Reserves	5,650.0	3,668.9
	2C Contingent Resources	7,734.3	5,022.3
<b>EPC869</b>	2C Contingent Resources	4,150.3	2,695.0
<b>EPC1132</b>	2C Contingent Resources	1,220.1	792.3

## Key risks

The results of the valuation detailed in the Report are forward looking information that is subject to a number of known and unknown risks, uncertainties and other factors that may cause the actual results to differ materially from those presented here. Key risks to the Project are considered by Xstract to be:

- Carbon Energy requires approval from the Queensland Government in order to continue with activities designed to commission the Project site and commence commercial production of syngas for conversion to SNG. Having recently submitted a decommissioning report and rehabilitation plan, Carbon Energy is hopeful that it will receive the requisite approvals in order to commence construction activities in calendar year 2015, targeting first production in 2017. Xstract considers this timeline may be pushed out by up to two years pending support from the Queensland Government.
- Delineating a second area capable of supporting up to 47 panels may prove more difficult than currently expected given the various geological, hydrological and geotechnical requirements for commercial production.
- The classification of the syngas reserve for Carbon Energy's EPCs 867, 869 and 1132 located in the Surat Basin, Queensland (i.e. outside of Carbon Energy's MDL374) may be overstated in terms of confidence.
- Relative to historic transactions, the current market is heavily discounting certain unconventional gas assets, including NSW CSG and Queensland UCG pending greater clarity regarding the development pathway for projects in these sectors. Any change in the current political landscape for unconventional gas may result in a marked re-rating of these sectors.
- The current price outlook for SNG is heavily dependent upon the on-going development of CSG and LNG infrastructure, which is due to come on-line within the next few years. Whilst current prices are comparatively low relative to near to medium term forecasts, gas prices are expected to rise dramatically during the transition from a domestic focussed to export oriented marketplace.

## **Reporting standard**

The Report has been prepared in accordance with the following codes:

- The 2005 edition of the Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports (VALMIN Code); and
- The 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code).

For the purposes of the Report, value is defined as 'fair market value' (FMV), being the amount for which a mineral asset should change hands between a willing buyer and a willing seller in an arm's length transaction where each party is assumed to have acted knowledgeably, prudently and without compulsion.

The estimates of syngas reserves and contingent resources presented in the Report have been prepared by MHA Petroleum Consultants (MHA) in accordance with the definitions and guidelines set forth in the 2007 Petroleum Resources Management System (PRMS) approved by the Society of Petroleum Engineers (SPE).

## **Data sources**

In developing its assumptions for the Report, Xstract relied upon information provided by Carbon Energy and information available in the public domain including:

- Various papers extracted from technical conference proceedings and Australasian Institute of Mining and Metallurgy (AusIMM) Monographs;
- Press releases, public announcements, media and analyst presentation material and other public filings, including information available on Carbon Energy's website;
- Brokers' reports and recent press articles on Carbon Energy and other comparable companies, as well as the coal and coal gasification industry;
- Share market data and related information on Australian and international listed companies engaged in the coal and gas industries and on acquisitions of companies and businesses in these industries; and
- Information relating to the coal and gas markets including forecasts regarding supply and demand, commodity price, inflation rates and exchange rates.

In the execution of its mandate, Xstract reviewed all relevant pertinent technical and corporate information made available by representatives of Carbon Energy, which has been accepted in good faith as being true, accurate and complete, after having made due enquiry.

## **Reliance on other Experts**

Xstract has not relied on any third party opinion in compiling its value opinion. The technical personnel responsible are based entirely in Xstract's Brisbane office. Xstract has held discussions with Carbon Energy personnel in its Brisbane office to facilitate an understanding of the Project.

For the technical assessment, Xstract sent two representatives (a geologist and mining engineer) to carry out a visit to Carbon Energy's Project site. In addition, Xstract has completed a data review of the available technical data and held discussions with independent parties regarding Carbon Energy's proposed development and exploration assets. Based on these validation steps, Xstract has developed a good in-house understanding of the assets and has no reason to question the validity of the technical information supplied.

## **Competent Persons and Experts statement**

Xstract's consultants involved are Independent Experts as defined by the VALMIN Code. They are also members of either the AusIMM or the Australian Institute of Geoscientists (AIG), for which compliance with the JORC and VALMIN Codes is mandatory. Xstract's Competent Persons involved in the preparation of the Report are members in good standing with one or more of these professional institutions and have the required qualifications and experience as defined in the JORC and VALMIN codes to conduct this technical assessment and valuation.

Xstract's consultants have extensive experience in preparing competent persons, mineral specialist, independent geologist and valuation reports for mineral exploration and production companies. The authors of the Report are qualified to express their professional opinions on the values of the mineral assets described.

## **Independence, disclaimer and warranty**

Xstract is an independent mining consultancy. Xstract confirms its independence for the purpose of the Australian Securities and Investment Commission's Regulatory Guide 112 – Independence of experts (ASIC, 2011). Xstract was commissioned by Carbon Energy on a fee for service basis according to Xstract's standard schedule of rates. Xstract's fee is not contingent on the outcome of its valuation. None of Xstract's consultants or their immediate families involved in the preparation of the Valuation have (or had) a pecuniary or beneficial interest in Carbon Energy prior to or during the preparation of the Valuation.

Xstract has made due enquiries to the Queensland Department of Natural Resources and Mines (DNRM) in order to validate information provided by Carbon Energy. However, Xstract is not qualified to express legal opinion and has not sought any independent legal opinion on the ownership rights and obligations relating to the respective mineral assets under licence or any other fiscal or legal agreements that Carbon Energy may have with any third party in relation to its Queensland assets.

The Valuation may contain or refer to forward-looking information based on current expectations, including, but not limited to timing of mineral resource estimates, future exploration or project development programmes and the impact of these events on Carbon Energy's projects. Forward-looking information is subject to significant risks and uncertainties, as actual results may differ materially from forecasted results. Forward-looking information is provided as of the date hereof and Xstract assumes no responsibility to update or revise them to reflect new events or circumstances.

The valuation is appropriate as at 15 October 2014. The valuation is only appropriate for this date and may change in time in response to variations in economic, market, legal or political factors, in addition to ongoing exploration and development studies. All monetary values outlined in the Report are expressed in AUD unless otherwise stated.

## **Forward-looking Statements**

This announcement contains certain "forward-looking statements". Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors and are subject to significant business, economic and competitive uncertainties and contingencies associated with exploration and/or production, many of which are beyond the control of Carbon Energy, that may cause actual results to differ materially from those predicted or implied by any forward-looking statements. No representation or warranty is made by or on behalf of Carbon Energy, Xstract or their respective directors or officers, employees, advisers or agents that any projection, forecast, calculation, forward-looking statement, assumption or estimate contained in this presentation should or will be achieved or that actual outcomes will not differ materially from any forward-looking statements.