

APP Securities Company Research

17 February 2016

Carbon Energy Limited

CNX A\$0.014

TARGET PRICE A\$0.14

SPECULATIVE BUY

Carbon Energy Limited (CNX) is a resources development company targeting the development of UCG in Australia and Asia (China). CNX has entered into a strategic JV with a Chinese partner which is likely to enable a relatively rapid rollout of its patented keyseam UCG business model throughout targeted sites. This technology has globally significant ramifications.

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Asia Pacific
Prudential Securities

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Low risk UCG commercialisation pending ...

Carbon Energy Limited (ASX: CNX) is a small QLD based energy technology company focussed on the development and commercialisation of underground coal gasification (UCG) projects.

The company owns proprietary gasification technology (keyseam) which can be utilised to develop otherwise stranded coal deposits, both here and overseas.

Future sources of revenue and earnings are expected to come from developing UCG ready coal assets (both here and o/s (Asia)), as well as licensing and technical services income and royalties resulting from its tie up with the Chinese based Beijing JinHong Investment Co Ltd (JinHong).

We have determined a valuation of **\$0.23/share** based on the successful rollout of the companies licensing model in mainland China, coupled with the inherent value of the company's existing technology.

We like CNX for the following reasons:

- Proven technology through to feasibility study level;
- Exposure to the energy/chemicals growth markets of China/Asia;
- A licensing model that has already been successfully demonstrated in Asia;
- Potential valuation upside on conservative assumptions.

We initiate research coverage on CNX with a **SPECULATIVE BUY** and price target A\$0.14/share, representing 60% of the assessed valuation of \$0.23/share.

Company Data

Number of shares	1487.938M
Market capitalisation	\$20.8M
Free Float (%)	78%
12 month high/low	\$0.032/\$0.011
Average Daily Turnover (\$M)	
% S&P/ASX 200	n/a
% All Ordinaries	n/a
DDM Ranking	n/a
GICS Industry Group	

Data Source: Fact set, APP Securities

Earnings Summary (AUD)

Year end June	2014 (a)	2015 (a)	2016 (f)	2017 (f)
Revenue (\$K)	6,282.8	4,084.9	3,250.0	29,000.0
BITDA (\$K)	-4,929.0	-3,589.0	-3,750.0	12,350.0
Reported NPAT (\$K)	-9,373.0	-6,172.0	-4,750.0	11,750.0
Adjusted NPAT (\$K)	-9,373.0	-6,172.0	-4,750.0	11,750.0
Adjusted EPS (c - FD)	-0.47	-0.81	-0.32	0.79
Adjusted EPS growth (%)		-72.3	60.6	n/a
Adjusted P/E (x)	n/a	n/a	n/a	1.6
Dividend (c/sh)	0.0	0.0	0.0	0.0
Gross yield (%)	0.0	0.0	0.0	0.0
Net yield (%)	0.0	0.0	0.0	0.0

Share Price Performance



Source: APP Securities, Company Reports. APP Securities contribute all company estimates to Bloomberg, Thomson Reuters, Fact Set and Capital IQ.

Investment Summary

CNX is a resource technology company based in QLD focussed on development of its patented keyseam underground coal gasification (UCG) technology (as developed with CSIRO). It is the only company so far to successfully complete a **full life cycle UCG trial** under independent environmental control.

CNX is also pursuing commercial development of its 100% owned Blue Gum Gas Project (Bloodwood Creek), SE QLD. The Blue Gum Gas Project has an inferred coal resource of 243Mt contained within mining development license (MDL) 374. This resource is coincident with 2P Gross syngas volume estimate of 1737.9PJ

The company's strategy incorporates:

- 1) Monetising its UCG technology expertise via licensing, technical services and royalty fees
- 2) Development of its UCG assets (namely QLD Surat Basin, plus other assets); and
- 3) Establishing keyseam as the gasification technology of choice globally for monetising deep coal resources worldwide.

The gasification of stranded, otherwise uneconomic coal measures is a proven and successful way of producing synthetic gas (syngas) from underground stranded coal. Syngas is a mixture of various gases (including H₂, CO, CH₄, CO₂ etc.) depending on gas inputs, which can be converted into a range of end products including SNG (Synthetic Natural Gas or CH₄) (suitable for conversion into LNG), ammonia (NH₃) (fertiliser applications), methanol (CH₃COH) (plastics, fuels, petrochemicals), or directly as a power source,

Production costs of SNG are highly competitive with other forms of energy production. There are additional environmental and capital advantages to UCG over either conventional gas or surface gasification processes.

CNX has a patented process which, when combined with its significant "full cycle" UCG operating experience, coupled with exposure to the growing Chinese gas market, offers excellent upside.

We have valued CNX at A\$0.23/share (on a composite basis) to take account of its existing gas assets, its technology license agreement JV and the value to date of its existing technology.

Jinhong Joint Venture

The joint venture with Beijing JinHong Investment Co Ltd (JinHong) was approved by shareholders in November 2015. JinHong is associated with the Kam Lung Investment Development Company (holder of 19.99% CNX). The establishment of the partnership is subject to both Chinese Government approvals and receipt of US\$10M (the first tranche of a total US\$30M in capital contributions).

The strategic rationale for the JV is for the licensing and commercialisation of the company's keyseam technology for use in China.

The primary terms of the JV are:

- JinHong to capitalise the JV by US\$30M over three years;
- CNX to initially contribute a non-exclusive license (Technology License Agreement) to the JV for development of a UCG demonstration facility;
- Post successful ignition (commissioning) of the demonstration facility, CNX to grant an exclusive license for the use/sublicensing of keyseam in China;
- CNX to be entitled to 90% of license fees before the JV is allocated an exclusive license and
- Post exclusive license, JV profit distributions to be allocated CNX (30%), JinHong (70%);
- CNX to be engaged directly to provide the technical services to all licencing and sub-licencing of the technology.

CNX commissioned a detailed independent expert report on the fairness of the JV which was completed by Pricewaterhouse Coopers Securities Ltd (PWC). The report concluded the transaction was fair and reasonable and assessed the midpoint fair market value of the Technology License Agreements (TLA's) at US\$26.1M v the midpoint fair market value of the Proposed Transaction Consideration of US\$30.7M.

PWC analysis incorporated a probability weighted range of US\$12.3-US\$40M (based on development of 5-10 projects) for the TLA's. PWC assumed CNX would be responsible for initial capital costs (estimated at US\$15M per project) and spent over 2 years.

After discussion with CNX management, we agree with PWC that the JV likely provides a stronger link into China through strategic business and government contacts and provides growth opportunities that would otherwise have been impossible to access.

In addition, the JV is likely to confer other advantages to CNX namely:

- Minimal capital requirements going forward;
- First fully funded demonstration project outside Australia;
- Support from the company's cornerstone investor with contacts into the Chinese markets;
- Ability for CNX to have an equal voice in strategic direction; and
- An additional revenue source from licensing the technology to third parties.

CNX is also a foundation partner of the International UCG Research Centre as part of the China University of Mining and Technology, developed in order to gain the backing of the National Development and Reform Commission (NDRC) which is China's central planning agency.

The university is a national key university under the direct supervision of the Ministry of Education of China and a Project 211 and Project 985 platform. The university is ranked as the best mining university in China and has a world-wide reputation in coal mining technology and research. The main campus is located in Jiangsu Province. CNX believe this relationship provides further opportunities to develop key business relationships in China.

Technology Licensing Agreements

CNX has agreed to contribute a non-exclusive license to the Jinhong JV to use its keyseam technology for the development of a commercial demonstration facility – post successful commissioning of the facility, the agreement calls for CNX to grant an exclusive license (and sub-licensing) for the right to use its technology within China (on a 30% CNX: 70% JinHong) profit split.

Pre the exclusivity phase, the JV allows CNX to license projects through the JV and retain 90% of license fees.

In determining projected contributions from the TLA's, we have incorporated some assumptions contained within the October 2015 PWC independent expert report.

We have modelled the TLA's as follows:

- License Fees (US\$10M) are a one-off fee generated in UCG projects year 1 with CNX entitled to 30% (post license exclusivity);
- Technical Services fees (US\$4M) are generated in UCG projects years 1 and 2 with CNX entitled to 100% (pre and post license exclusivity);
- Royalties/Retainer payment (based on 5% of total project revenues generated) in UCG projects year 3 onward with CNX entitled to 30% (post license exclusivity), and 100% (on any pre-exclusivity licensing) as well as 90% on pre-exclusivity licensing that is run through the JV;
- We have assumed similar operating cost assumptions to PWC in assessing a potential valuation (US\$3M pa for years 1 and 2) and operating costs set at 15% of royalty revenues (from years 3 to completion of project i.e. 30 years);
- We have assumed CNX develop 1 new project per annum for 10 years (for a total of 10 projects) under license;
- We have also assumed 1.5 projects are developed in the pre-exclusivity phase (@ 100%) (although we understand there are several currently being pursued by CNX);
- We have assumed gas prices @ US\$6/GJ (Syngas) pricing, A\$0.75 AUD/USD exchange rate – we understand that breakeven input pricing in China is significantly higher than this (US\$9/GJ); and
- We have assumed 30PJ production per annum over an average operating life of 30 years for each project.

A typical technology licensing model is shown below (for 100% JV) operational life 30 years, production 30PJ per annum.

Fig 1. Typical Technology License Model

Exch rate LT	AUD/USD	0.75			
Gas price	(US\$/gj)	6.00			
Gas price	(A\$/gj)	8.00			
Discount rate		12.00%			
PROJECT 1			Year 1	Year 2	Year 3
Production					
SNG					
Revenue					
Tech Licensing	(US\$M)		10.00		
Engineering Service Fee	(US\$M)		4.00	4.00	
SNG Revenue	(US\$M)				180.00
CNX Royalty	(US\$M)				9.00
total Income	(US\$M)		14.00	4.00	9.00
	(A\$M)		18.67	5.33	12.00
Total Costs			4.00	4.00	1.80
Net Income			14.67	1.33	10.20
less					
Depreciation	straight line		0	0	0
NPBT	(A\$M)		14.67	1.33	10.20
tax @	30%		4.4	0.4	3.06
NPAT	(A\$M)		10.27	0.93	7.14
capex @	(A\$M)	0			
Cash flows					
Net Cash flow	(A\$M)	0.00	10.27	0.93	7.14
70% payout			7.19	0.65	5.00
NPV	(A\$M)	@	47.09		

Source: CNX and APP Securities

UCG

UCG is not a new technology - it has been around since the early 1930's (primarily in the former Soviet Union) with the process relying on controlled gasification (partial oxidation) of solid coal below the earth's surface creating a mix of different gases in distinct temperature zones.

The production of syngas (primarily hydrogen and carbon monoxide) is a versatile and easily handled product used in existing proven industrial processes (low emission fuel gas, conversion into pipeline quality methane (SNG) or used in a range of chemicals as a feedstock).

Since transformation from coal to gas occurs underground, product gas is extracted at the surface in a controlled manner leaving ash behind at the point of gasification.

Limitations of the initial UCG designs included consistency of gas quality, commercial scalability, and "batch" v continuous production processes and geotechnical stability.

CNX's keyseam technology has been a game changer in UCG design. Its design innovation solves the issues of initial UCG constraints. keyseam delivers greater control of operations which leads to improved environmental performance and excellent gas quality results.

Correct **site selection** is integral to successful UCG project development and CNX identifies key criteria as:

- A relatively thick coal seam with minimal discontinuities;
- Structurally robust overburden displaying low permeability that provides a hydraulically sealed coal seam;
- Coal ash content < 50%;
- Absence of good quality groundwater proximal to the coal seam; and
- A depth of coal seam which provides groundwater head pressure high enough to ensure an efficient gasifier pressure (nominally 200m).

UCG has a relatively small surface footprint compared with conventional coal mining or surface coal gasification production and energy recovery (per Km²) in UCG is significantly > than Coal Seam Gas (CSG).

CNX's 2015 annual report highlighted that recoverable energy per Km² in its Surat basin UCG gas assets was significantly higher than conventional coal seam gas (CSG).

UCG advantages over Conventional Coal Gasification

The UCG process has several advantages over conventional (surface) coal gasification including;

- Lower initial and ongoing capital investment costs (due to the absence of a manufactured gasifier);
- No mining and handling of coal and solid wastes at the surface;
- No human labour or capital for underground coal mining;
- Minimum surface disruption (other than geomorphological subsidence);
- No coal transportation costs; and
- Direct use of water and feedstock is available in situ. The high rate of water usage during conventional surface coal gasification has become a major issue in China given scant water availability.

In addition, deep cavities formed as a result of UCG can potentially be used for CO₂ sequestration.

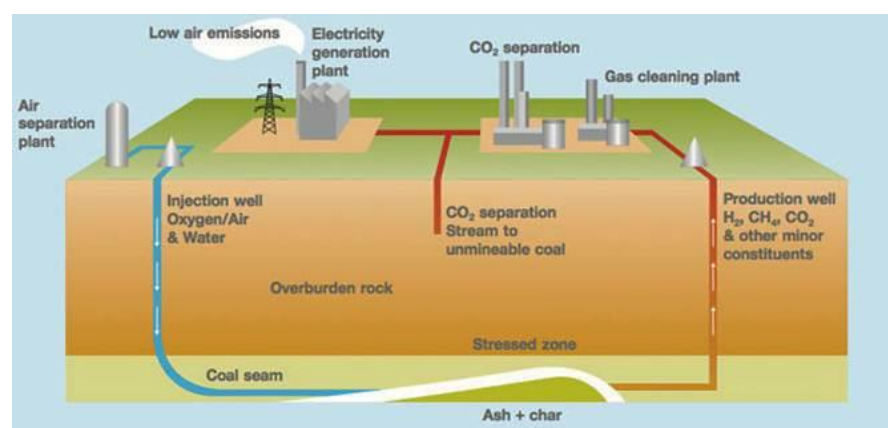
UCG can be used to access coal resources that are either uneconomical to work by conventional underground coal mining methods, or are inaccessible due to depth, geology or other mining and safety considerations.

Earlier Conventional UCG Processes

Various production / extraction techniques have been employed in the past. In the vertical wells technique (employed in former Soviet Union countries) a UCG panel consists of a vertical injection and production well whilst the controlled retracting injection point (CRIP) method was developed in the US to limit the amount of drilling to access deep coal seams. In this design the vertical production well is intersected by a long horizontal borehole, drilled from the surface to the seam and then horizontally along the base of the coal seam to the production well.

Both methods use a "Batch" type UCG process with individual gasifier chambers only lasting 1-3 months, and requiring regular new ignitions. Gas quality also varies as each gasifier chamber matures.

Fig 2. Traditional vertical well UCG process



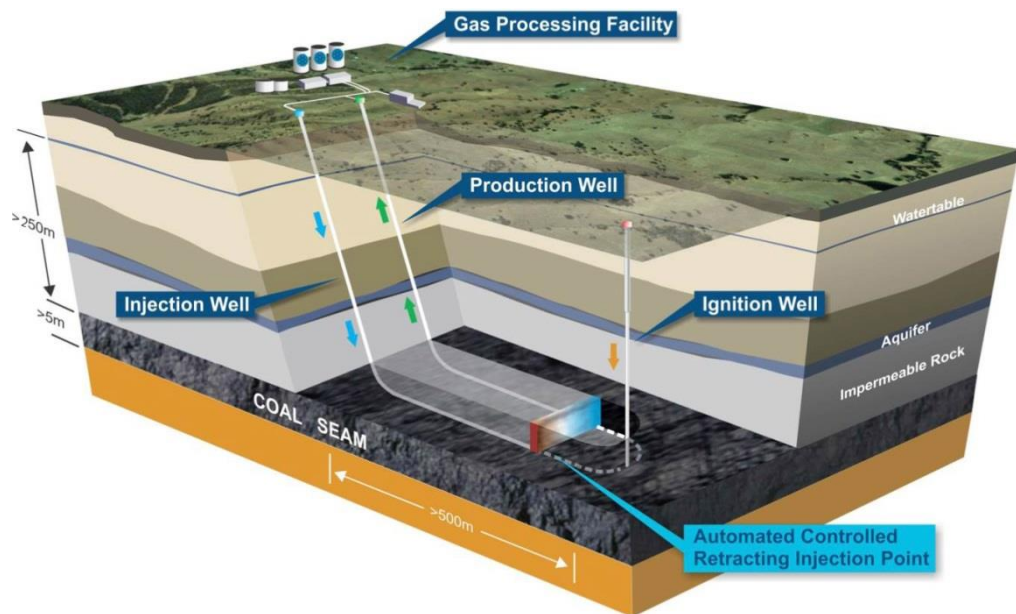
Source: CNX

keyseam Process

CNX's keyseam UCG parallel controlled reaction injection point (Parallel CRIP) technology was originally developed by the CSIRO over ten years and was a new design extending the CRIP technology trialled in the US. This has been further developed by CNX through over 5 years of field trials and expenditure of > A\$100M as well as over 20 months of monitored continuous production of high quality syngas.

Key differences between keyseam and vertical well type UCG system are shown below (Fig 3.):

Fig 3. Keyseam UCG process



Source: CNX

Note:

- Horizontal production/injection holes;
- Distance between gasification face/ignition wells and gas processing facility;
- Depth from water table to gasification face;
- Width of gasification face (typically 30m); and
- Automated retracting injection points.

Proof of Concept

CNX's A\$25M demonstration trial (Bloodwood Creek, QLD) commenced in October 2008 showed proof of concept namely:

- Design/construction of a demonstration project (by Thomas and Coffey P/L);
- Successful conversion of between 100-150t coal/d for 100 days;
- Coal panel 600m X 30M X approx. 10M, with consumption of a 30M X 30M X 10M coal block;
- A production rate of 1Pjpa from a single coal panel;
- Use of an oxygen plant to feed oxygen to the underground gasifier;
- Flaring of gas production;
- The system was monitored for both syngas composition, temperature and other parameters, hydrology, environmental impacts, resource recovery and utilisation; and
- Was completed end 2009.

Single Gasification Face

keyseam CRIP utilises a single gasification face which retreats along the coal seam throughout the life of the panel where a single streaming gasifier face is created via the pressure differential between the production and injection well head – this process encourages a consistent high efficiency gasification face over the panel life (of up to 10 years) with continuous remote monitoring and compares with average 1-3 months continuous gas supply with erratic consistency seen in previous UCG* (*Source: CNX Jan 2016*).

Gas Recovery

Commercial keyseam CRIP UCG developments will incorporate several panels (between say 3-40) per project running contiguously. Full recovery of each panel occurs under keyseam and geotechnical modelling optimises the width of support pillars of coal between panels.

A site visit to CNX's Bloodwood Creek demonstration project (16 years of development and field trials, 2000 groundwater sample analyses, monthly reporting to QLD Government authorities since 2008, 2 gasified panels) indicated successful commissioning (and de-commissioning) on a 30m x 8m x 500m panel grid (at 200m depth) and 15m panel separation. On a 3 panel development this would represent 65% coal recovery.

System Integrity

As the production face retreats towards the vertical component of the production and injection boreholes, the injection and retrieval points are automatically withdrawn into new (virgin) coal hence maintaining a constant gasifier configuration and constant gas quality.

Design versatility

Discussions with CNX management suggest commercial field panel designs will be tailored to specific production requirements depending on volume and product specificity and would incorporate geotechnical requirements for panel spacing, groundwater pressure, water flow rates etc.

Valuation Summary

Risks to valuation include project delays and capital constraints, time to first production, Chinese Government approval delays, potential weakness in Chinese gas markets, with commensurate variability in pricing and cost outlook, a refocus on higher life cycle SNG GHG emissions v other energy sources.

Upside to valuation includes a faster than forecast take up rate of UCG developments, and potential upside to our gas price forecasts.

Our composite valuation of CNX (Fig 4.) includes:

- Valuation of existing gas assets*;
- Valuation of technology (2015 book value assets);
- Valuation of future licensing/technology revenues/earnings sourced from the JinHong JV;
- Valuation of standalone UCG projects pre-exclusive license commencement;
- Adjustments for tax losses; and
- Adjustments for PV of corporate/admin.

We have incorporated CNX's approximate \$236M tax losses in our valuation at 50% of an ascribed 10% of face value.

*In determining the value of existing Surat Basin gas assets we note that CNX is seeking to commercialise its Blue Gum/Bloodwood Creek gas project (QLD). The QLD Government has yet to ratify the development of UCG in QLD. We have placed a low probability on commercial development of this project within the next 5 years, and have instead opted to provide comparative market analysis on similar coal/gas assets listed on the ASX.

Fig 4. Valuation Summary:

Valuation Summary:						
Technology Licensing Agreements - within exclusivity period						
in any year, for new projects CNX attributable revenue and costs assumed as follows:						
			(US\$M)		CNX	
	Technical Services fees	year 1	4		100.00%	
		year 2	4		100.00%	
	Licensing fees	year 1 only	10		30.00%	
	Royalty/Retainer Fees	years 3 +	\$		5.00%	
Production:	30PJ pa					
Project Life:	30 years					
New projects per year:	1					
Total projects:	10					
Discount rate:	12%					
Sum Project Net cash flows attributable to CNX						(A\$M)
TLA (30:70) CNX		NPV	@	12.00%		129.11
Technology Licensing Agreements - CNX 100% - 2 projects pre-exclusivity period						
TLA 100% CNX		NPV	@	12.00%		105.49
Total						234.60
Assumed cash flows from JV licensed model commences FY18						
Blue Gum Gas Project						
	inf coal resource (Mt)	2P reserves (PJ)	Rec gas GJ/t	Debt (\$M)	Mcap (A\$M)	EV/Pj (\$K)
MDL 374	243	1738	7.15	8.00	20	16.81
LCK Energy Project*	377	2963	7.86	-1.50	75	24.81
* 2C resources					@	20.00
CNX m'cap adjusted for compco uplift EV/PJ		(A\$M)				24.17
Value of technology						(A\$M)
CNX have booked deferred exploration and evaluation costs of \$90M						90
as of June 2015 reflecting replacement costs of UCG IP						
Intangible assets reflect value of technology o/s (@ 50% carrying value)						24
						(A\$M)
Net Valuation						355.77
Add tax losses	50% of 10% of value					14
Less						
	Net Debt					-8
	PV of Corp overhead*					-20
Total						341.77
No of shares						1488
per share	cents		@			\$0.23
* assumes increase in corp with project expansion etc						

Source: CNX and APP Securities

Pricing

The **domestic** outlook for gas prices, east coast Australia, appears linked to the pending development of 6 new Australian based LNG processing facilities (including 3 QLD operations converting coal seam methane to LNG). These developments will place significant pressure on the Australian east coast gas supply/demand balance, with demand set to rise by > 200% from existing levels of 600-700 PJpa to exceed 2,200 PJ pa by 2016/7.

The supply/demand picture in **mainland China** remains muted short term, in line with the recent slowdown in China's rate of GDP growth (6.9% in 2015) the slowest pace witnessed in more than two decades.

Anecdotally

- Chinese LNG imports were down 1.1% year on year in 2015 v a 10% rise in 2014 with total gas consumption up about 2% in the first half calendar 2015 (v double-digit growth in recent years). Additionally, China has recently lowered the ceiling for city gate natural gas prices for the non-residential sector by around 28 per cent to US\$2.95/mBTU. This is to enable a greater proportion of gas in the overall energy mix.*

*Source: The U.S. Energy Information Administration (EIA)

- Energy consultancies (such as Wood Mackenzie) have reduced forward China gas-demand forecasts by about 15% to 360 billion cubic meters by 2020.

The development of UCG technology in China/other Asia is likely to supply a combination of both industrial and energy consumers.

Limited data on potential demand growth for UCG (China) is available, however a gauge of potential demand can be seen below (in Fig 5) showing current and planned SNG projects set to commence through to 2017. Note total current and planned installed capacity of approximately 2400PJ output by end 2017.

Fig 5. Current and planned SNG capacity – Mainland China*

PJ/Yr. output	Plant Name	Year	Country	Feedstock	Saleable Prod
54	Datang	2010	China	Coal	SNG
74	Xinwen yii	2010	China	Coal	SNG
50	Datang Ningxia 1	2011	China	Lignite	SNG
50	Datang Ningxia 2	2011	China	Lignite	SNG
54	Hexigten	2012	China	Coal	SNG
52	Xinjiang Qinghua	2013	China	Coal	SNG
50	Datang Ningxia 3	2013	China	Lignite	SNG
15	Inner Mongolia Huineng	2014	China	Coal	SNG
23	Huineng	2014	China	Coal	SNG
74	SUXIN	2014	China	Coal	SNG
27	Henghe Jiangxi	2016	China	Coal	SNG
149	Lu'an Yii	2016	China	Coal	SNG
149	Guodian Yii	2016	China	Coal	SNG
205	Qinghua Yii	2016	China	Coal	SNG
223	CPI Yii	2016	China	Coal	SNG
48	Shandong Tianking	2017	China	Coal	SNG
149	Datong	2017	China	Coal	SNG
149	Henan	2017	China	Coal	SNG
149	China Coal	2017	China	Coal	SNG
223	Huadian	2017	China	Coal	SNG
447	Sinopec	2017	China	Coal	SNG
2414					

* Source: CNX

CNX - well positioned

CNX's UCG model is strategically well positioned to take advantage of the Chinese Government's push for increased penetration of natural gas within the Chinese energy mix. It has the following features:

- Relatively short lead time and competitive capex;
- Relatively low opex through to SNG (@ \$A3.50-4.00/GJ);
- Continuity of production and consistent flow rates;
- Reduced geological complexity v other unconventional gas sources (limited water table impact, use of insitu water etc.);
- Flexibility of project development – with a range of potential end products depending on input gases, UCG has a versatile production mix which can be tailored to client specifications; and
- Potential to monetise and access extensive available “uneconomic” coal deposits

Management Profile

MD/CEO – Morne Englebrecht – 15 years Australian and international oil and gas, UCG and resources industry experience – provides leadership and strategic direction and manages international expansion plans

Chairman/Non Exec Director – Dr Chris Rawlings – extensive experience managing and operating mining operations and mining companies

Technical Director – Dr Cliff Mallett – Responsible for development of CNX's technology – assesses potential coal deposits amenable to UCG – involved in carbon capture opportunities – associated with UCG for over 20 years – 30 years mining research experience CSIRO – Chairman of the International Association for Underground Coal Gasification 2013-2015.

General Manager Operations – Terry Moore – 35 years engineering experience electrical, mechanical, civil and maintenance disciplines as well as design and construct.

Chief Financial Officer – Catherine Costello – 18 years experience mining and engineering sectors including Ausenco, Lihir, Gold, Placer Dome.

Financial Summary

	2012 (a)	2013 (a)	2014 (a)	2015 (a)	2016 (f)	2017 (f)
PROFIT/LOSS	(\$K)	(\$K)	(\$K)	(\$K)	(\$K)	(\$K)
Tech/License service fee	0.00	0.00	2,332.03	285.27	250.00	28,000.00
Other Income *	116.72	596.34	3,950.80	3,799.63	3,000.00	1,000.00
Total revenue	116.72	596.34	6,282.83	4,084.90	3,250.00	29,000.00
Cost of Sales						
Employee Benefits expense	-6,580.50	-5,647.90	-5,702.60	-4,195.89	-4,000.00	-4,000.00
Operating expenditure	-4,249.44	-1,869.78	-1,624.86	-309.54	-200.00	-8,250.00
Consultancy costs	-1,659.07	-1,877.45	-1,048.90	-1,327.15	-1,400.00	-3,000.00
Total Cost of Sales	-12,489.00	-9,395.13	-8,376.36	-5,832.58	-5,600.00	-15,250.00
Gross Margin	-12,372.28	-8,798.79	-2,093.53	-1,747.68	-2,350.00	13,750.00
less						
Admin/Legal/Corporate	-5,272.65	-3,181.72	-2,357.48	-1,759.19	-1,500.00	-1,500.00
Share based payments	304.18	-280.00	-478.39	-83.11	-100.00	-100.00
EBITDA	-17,340.75	-12,260.51	-4,929.40	-3,589.98	-3,750.00	12,350.00
less						
Depreciation Expense	-90.37	-97.39	-145.25	-228.71	-200.00	-200.00
Finance costs						
Interest income	625.86	219.75	174.70	106.83	100.00	100.00
Interest Expense	-346.02	-4,561.26	-2,270.74	-1,878.70	-500.00	-100.00
Net Interest	279.84	-4,341.51	-2,096.04	-1,771.87	-400.00	0.00
Impairment expense	0.00	-18,790.67	-1,970.00	-634.15	-400.00	-400.00
Loss on disposal of assets	-94.04	-404.36	0.00	0.00	0.00	0.00
Net Profit/Loss pre tax	-17,245.33	-35,894.44	-9,140.70	-6,224.71	-4,750.00	11,750.00
Income tax benefit/expense	0.00	0.00	-233.20	52.10	0.00	0.00
tax at 30%						-3,525.00
Net Profit/Loss	-17,245.33	-35,894.44	-9,373.90	-6,172.61	-4,750.00	11,750.00
Normalised Net profit/loss	-17,245.33	-17,103.77	-7,403.90	-5,538.47	-4,350.00	8,625.00
* Govt grants excludes interest income and movement in fair value of derivatives						
	<u>2012 (a)</u>	<u>2013 (a)</u>	<u>2014 (a)</u>	<u>2015 (a)</u>	<u>2016 (f)</u>	<u>2017 (f)</u>
CASHFLOW	(\$K)	(\$K)	(\$K)	(\$K)	(\$K)	(\$K)
Cash flows from Operating						
- receipts from customers	-	-	1,810.80	172.33	250.00	28,000.00
- payments to	-19,387.52	-13,376.80	-12,425.00	-8,140.00	-6,000.00	-14,250.00
- interest received	427.70	187.75	166.94	91.44	0.00	500.00
- R/D rebate	-	7,002.76	3,865.46	3,787.50	3,000.00	1,000.00
- Other	1,750.80	606.37	569.40	425.50	300.00	300.00
Net Cash flows from Operating	-17,209.02	-5,579.93	-6,012.40	-3,663.23	-2,450.00	15,550.00
Cash flows from Investing Activities						
- Net Acquisitions	-4,744.94	-1,249.10	-250.50	-302.28	0.00	0.00
- Net disposals	296.64	350.00	1,050.00	-	0.00	0.00
Net Cash flows from Investing	-4,448.30	-899.10	799.50	-302.28	0.00	0.00
Cash flows from Financing Activities						
- Equity Financing	8,264.78	-	8,874.17	2,566.15	0.00	0.00
- Debt Financing (net)	10,000.00	2,997.40	-2,997.20	1,165.93	0.00	-10,000.00
- Other	-135.66	-1,016.10	-49.30	-465.05	0.00	0.00
Net Cash flows from Financing	18,129.12	1,981.30	5,827.67	3,267.03	0.00	-10,000.00
Net Increase/decrease in cash	-3,528.20	-4,497.73	614.77	-698.48	-2,450.00	5,550.00
Cash at beginning Financial Year	9,798.98	6,270.78	1,773.05	2,387.82	1,689.34	-760.66
Closing Cash Balance	6,270.78	1,773.05	2,387.82	1,689.34	-760.66	4,789.34

* Source: CNX and APP Securities

	2012 (a)	2013 (a)	2014 (a)	2015 (a)
	(\$K)	(\$K)	(\$K)	(\$K)
BALANCE SHEET				
Assets				
Current Assets				
Cash/Cash Equiv	6,270.60	1,772.56	2,387.11	1,688.74
Receivables	497.90	109.14	1,460.43	51.88
Other		83.55	39.46	65.42
Total Current Assets	6,768.50	1,965.25	3,887.01	1,806.04
Non-Current Assets				
Trade and other receivables	1,620.30	1,702.89	267.55	267.55
Investment in Associates	1,727.40			
Available for sale financial assets		450.00		
Construction WIP	2,715.70	2,555.33	2,555.33	2,555.33
UCG panel assets	1,733.64	1,776.10	1,774.90	1,786.89
PP and E	1,346.93	1,083.22	1,043.28	834.19
Other non-current assets	1,607.60	1,722.72	860.33	860.33
Deferred exploration and	108,128.76	90,322.82	90,180.11	90,376.99
Intangible assets	54,815.48	47,623.94	47,598.83	47,902.73
Total Non-Current Assets	173,695.81	147,237.02	144,280.34	144,584.01
Total Assets	180,464.31	149,202.28	148,167.35	146,390.05
Liabilities				
Current Liabilities				
Trade and Other Payables	1,313.30	1,089.87	952.37	435.16
Deferred revenue			873.11	
Loans/Borrowings		2,997.23		1,165.94
Derivative financial liability		266.16	10.90	9.02
Provisions	768.02	1,334.35	829.34	386.70
Total Current Liabilities	2,081.32	5,687.61	2,665.72	1,996.81
Non-Current Liabilities				
Provisions	3,008.46	2,315.70	2,923.60	3,727.58
Financial liabilities	5,375.34	6,179.30	6,972.44	8,029.68
Total Non-Current Liabilities	8,383.80	8,495.00	9,896.04	11,757.25
Total Liabilities	10,465.12	14,182.61	12,561.76	13,754.07
Net Assets	169,999.19	135,019.67	135,605.59	132,635.99
Net Tangible Assets	115,183.71	87,395.73	88,006.75	84,733.25
Equity				
Issued capital	227,124.10	227,124.10	235,606.13	238,614.98
reserves	17,857.60	17,908.37	19,735.71	19,928.02
Accumulated losses	-75,032.30	-	-119,736.25	-
Total Equity	169,949.40	134,415.87	135,605.59	132,635.99

* Source: CNX

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