

Leigh Creek Energy Limited

Weaker A\$ strengthens case for urea option

LCK is currently evaluating two commercialisation options for its 1,153PJ syngas 2P Reserve: 1) using the syngas as a low-cost feedstock for on-site nitrogen fertiliser (urea, ammonia) production or, 2) cleaning the syngas to pipeline quality and supplying product to the east coast market. We believe that the urea option is the more likely.

- We note recent press reports stating that the Victoria state government has recently axed a six-year conventional exploration ban; the decision to open-up Victorian onshore gas Resources could exert downward pressure on east coast gas prices over the next few years, reducing that market attractiveness for emerging gas suppliers.
- There are numerous large and small gas plays in Australia looking to source funding to develop their assets (onshore, offshore, conventional or unconventional (CSG)) and secure offtake and pipeline access agreements. However, Australia is a significant net importer of nitrogen fertiliser. **Limited domestic production of urea could make a new entrant a more attractive prospect for potential JV partners /funding providers.**
- Developing an in-situ fertiliser plant obviates the need to build a 150km 60PJpa-capacity pipeline linking Leigh Creek to APA Group's (ASX:APA) Moomba distribution hub, and remove the need to subsequently enter into tariff negotiations with APA (to pipe the gas from Moomba to the east coast market).
- LCK's syngas is an immediate feedstock for the ammonia production stage with indicated production costs of A\$1/GJ delivered to plant (A\$40/t urea predicated on ~ 40GJ of gas needed to produce 1 tonne of urea). In contrast, at current east coast wholesale natural gas prices, we calculate that domestic gas input costs is closer to A\$280/t urea.
- The A\$ has weakened by 28% from US\$0.81 at the beginning of 2018 to current levels of US\$0.58.** While global US\$ fertiliser (urea (N), phosphate (P), potash (K)) prices have trended sideways to down in recent years, a softer domestic currency will undoubtedly start impacting on the fertiliser cost per acre for Australian farmers. Fertilisers account for 25-30% of a farmer's direct input costs; significant hikes in fertiliser costs could flow through into higher crop and meat/milk prices. **We suggest that on the back of the global chaos caused by the COVID-19 pandemic, many governments will be carefully reassessing their countries' food security. Increasing Australia's self-reliance on fertilisers / reducing Australia's dependence on imported fertilisers, may well become an important government objective in the next few years.**

Valuation and Recommendation. A\$0.60ps: Speculative Buy

We calculate the (pre-financing) NPV_{6.5} of a 30-year LOM 2Mtpa urea operation at A\$3.7bn, giving LCK an equity value of A\$334m or A\$0.55ps. Our EV/GJ peer comparison indicates an LCK valuation closer to A\$0.64ps. **We believe that LCK offers exciting capital upside for speculative investors as the LCEP is progressively de-risked. Potential near-term share price catalysts include firming up of existing HOAs, and announcements on customer offtake, financing, or farm-in agreements.**

23 March 2020

Share Price: A\$0.10

Target Price: A\$0.60

Target upside: 500%

Recommendation
Speculative Buy

Risk Assessment
Higher

Resources – Oil & Gas

David Brennan, CFA

Senior Investment Analyst

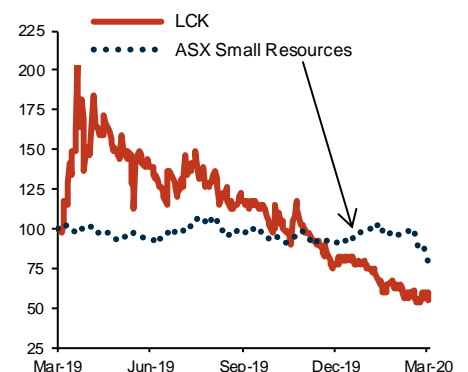
dbrennan@stateone.com.au

+61 (0)2 9024 9142

Leigh Creek Energy Ltd

ASX Code	LCK
52- week range	A\$0.10-A\$0.43
Market Cap (diluted) (A\$m)	67
Shares (FY19 diluted) (m)	605
Av Daily Turnover (shares)	1.9 million
ASX All Ordinaries	5,900
2019A BV per share (A\$)	0.05
2019A EPS (A\$)	-0.02
2019A Net Cash/(Debt) (A\$m)	-0.9

Relative price performance



Financial Statements

Leigh Creek Energy Limited

Year ending June

Profit & Loss Statement (A\$M)	FY19A	FY20E	FY21E	FY22E	FY23E
Revenue	0.0	0.0	0.0	0.0	0.0
Production/Pipeline costs	0.0	0.0	0.0	0.0	0.0
Corporate costs	(7.4)	(6.0)	(6.1)	(6.2)	(6.4)
PRRT	0.0	0.0	0.0	0.0	0.0
EBITDA	(7)	(6)	(6.1)	(6.2)	(6.4)
Depreciation & Amortisation	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Operating profit	(7.5)	(6.1)	(6.2)	(6.3)	(6.4)
NOI	0.0	6.5	0.0	0.0	0.0
EBIT	(7.5)	0.4	(6.2)	(6.3)	(6.4)
Interest income	0.1	0.1	0.1	0.0	0.0
Interest expense	(2.2)	(0.3)	(0.3)	(0.3)	(0.3)
Tax expense	0.0	0.0	0.0	0.0	0.0
Reported NPAT	(9.5)	0.2	(6.4)	(6.6)	(6.7)
Normalised NPAT	(10)	(6)	(6.4)	(6.6)	(6.7)
EBITDA Margin (%)	na	na	na	na	na
Operating profit margin (%)	na	na	na	na	na
EPS Reported (A\$)	(0.02)	0.00	(0.01)	(0.01)	(0.01)
EPS Normalised (A\$)	(0.02)	(0.01)	(0.01)	(0.01)	(0.01)
EPS growth (%)	nm	nm	nm	nm	nm
DPS - Declared (A\$)	0.00	0.00	0.00	0.00	0.00
Avg. no. of fully-diluted shares (m)	476	625	661	701	741
YE no. of fully-diluted shares (m)	605	641	681	721	761

Cash Flow Statement (A\$M)	FY19A	FY20E	FY21E	FY22E	FY23E
EBITDA	(7.4)	(6.0)	(6.1)	(6.2)	(6.4)
Investment in working capital	(2.0)	0.0	0.0	0.0	0.0
Tax expense	0.0	0.0	0.0	0.0	0.0
Operating Cash Flow	(9.5)	(6.0)	(6.1)	(6.2)	(6.4)
Capex	(20.3)	(2.0)	(2.0)	(2.0)	(2.0)
Other investments	0.0	0.0	0.0	0.0	0.0
Investing Cash Flow	(20.3)	(2.0)	(2.0)	(2.0)	(2.0)
Net interest received / (paid)	(2.0)	(0.3)	(0.3)	(0.3)	(0.3)
Debt draw down / (repayment)	0.2	0.0	0.0	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0
Equity raised / (repaid)	13.9	1.6	8.0	8.0	8.0
Financing Cash Flow	12.0	1.3	7.7	7.7	7.7
Non-operating & Other (R&D rebate)	11.5	6.5	0.0	0.0	0.0
Inc/(Dec) in Cash	(6.3)	(0.2)	(0.4)	(0.5)	(0.6)

Balance Sheet (A\$M)	FY19A	FY20E	FY21E	FY22E	FY23E
Cash & Equivalents	3.1	2.9	2.5	2.0	1.3
Receivables	6.5	6.5	6.5	6.5	6.5
Inventories	0.0	0.0	0.0	0.0	0.0
Other Current Assets	0.0	0.0	0.0	0.0	0.0
PPE and Exploration & Development	25.4	27.4	29.3	31.3	33.2
Deferred tax asset	0.0	0.0	0.0	0.0	0.0
Other Non Current Assets	0.0	0.0	0.0	0.0	0.0
Total Assets	35.0	36.8	38.3	39.8	41.1
Payables and other current Liabilities	1.3	1.3	1.3	1.3	1.3
Short Term Debt	4.0	4.0	4.0	4.0	4.0
Long Term Debt	0.0	0.0	0.0	0.0	0.0
Other Non Current Liabilities	0.0	0.0	0.0	0.0	0.0
Total Liabilities	5.3	5.3	5.3	5.3	5.3
Total Equity	29.7	31.5	33.1	34.5	35.8
Net Cash / (Debt)	(0.9)	(1.1)	(1.5)	(2.0)	(2.6)

Top 3 Shareholders	%	Date
China New Energy Group Ltd	24.2	
Crown Ascent Development Ltd	8.2	Aug-19
Citic Australia	2.8	

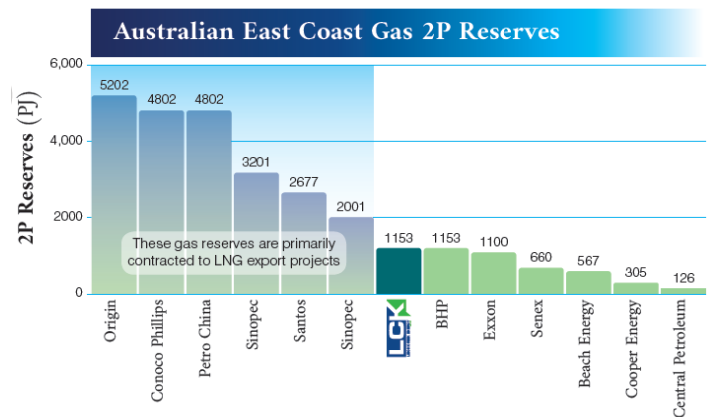
Source: Company, IRESS, State One Stockbroking forecasts

Potential Revenue and EBITDA to LCK from Urea Production	
Urea Price (FOB, A\$/t)	354
Gas input costs (A\$/t)	42
Processing costs (A\$/t)	96
Road haulage/ port costs (A\$/t)	21
Other (Royalties/Corporate) (A\$/t)	24
Total costs (A\$/t)	183
EBITDA (A\$/t)	171
EBITDA margin (%)	48%

Assuming urea prices of US\$215/t (real), and gas input costs of A\$1/GJ, we estimate a urea EBITDA margin of A\$171/t (EBITDA margin of 40%). Based on a 2Mtpa urea production facility, we calculate potential annual EBITDA of some A\$340m.

Gas Resources (PRMS)	Category	Syngas Energy (PJ)
PEL 650:LCEP	1P Reserves	-
	2P Reserves	1,153
	3P Reserves	1,608
	1C Contingent Resource	-
	2C Contingent Resource	1,469
	3C Contingent Resource	2,127

Note: PRMS = Petroleum Resources Management System



Leverage	FY19A	FY20E	FY21E	FY22E	FY23E
Net Debt/Equity	-3%	-4%	-5%	-6%	-7%
Gearing (ND/ND+E)	-3%	-4%	-5%	-6%	-8%
Interest Cover (x)	-3.7	1.6	-23.6	-23.4	-23.0

Valuation Ratios (x)	FY19A	FY20E	FY21E	FY22E	FY23E
Normalised P/E	na	na	na	na	na
Price/OP Cash Flow	na	na	na	na	na
Book value per share (A\$)	0.05	0.05	0.05	0.05	0.05
EV/EBITDA	na	na	na	na	na
ROE (%)	na	na	na	na	na

Market cap sensitivity to Resource EV/GJe	
Resource unit EV (A\$/GJe)	0.10
LCK 2P+ 2C Resource (PJ)	2,622
=> Resource EV (A\$m)	256
=> Market capitalisation (A\$m)	255
LCK share price value (A\$)	0.42
	0.64
	0.86

Note: Per share valuation based on fully diluted number of shares

Company Overview:

Leigh Creek Energy (LCK) is an emerging unconventional gas producer. The company's key asset is 1,153PJ of 2P recoverable gas Reserves associated with 302Mt of coal Reserves at its flagship Leigh Creek Energy Project located at the shuttered Leigh Creek coal mine in Central South Australia (550km north of Adelaide). LCK has an oil and gas exploration licence (PEL 650) - which overlays the Leigh Creek coal mining licence. LCK is evaluating commercialisation opportunities including supplying pipeline gas to the tight east coast market and/or using the gas to produce nitrogen fertilisers.

Recommendation

LCK's current commercialisation options include supplying pipeline gas to the EC market and/or on-site production of nitrogen-based fertilisers. **We believe that the urea route is the more likely path.** A simple average of our estimated Urea Project NPV of A\$0.55ps and our EV/GJ peer comparison valuation of A\$0.64ps indicates a target price for LCK of A\$0.60ps. Thus, at current share price levels, we believe that LCK offers attractive upside potential. In addition, LCK has signed a HOA with its majority shareholder China New Energy Ltd, to commence ISG opportunities in China, while the recently announced farm-in of prospects in the Cooper and Eromanga Basins could offer additional upside potential. **We believe that LCK offers exciting capital upside for speculative investors as the LCEP is progressively de-risked.**
Recommendation: Speculative Buy. Risk: Higher

Risks

Risks to our estimated target price and forecast earnings profile include, but are not limited to:

- East coast gas and South Australian electricity prices. Domestic gas prices may be impacted by overseas LNG prices which in turn may be impacted by the US\$ oil price and the USD:AUD exchange rate. SA electricity prices may be impacted by commercial and industrial demand and the increase in renewable energy (specifically wind and solar-generated electricity).
- Decline in east coast gas demand due to slower than expected demand for primary (gas) or secondary power (electricity), or an increase in renewable energy (wind, solar, battery).
- An increase in available gas to the domestic market: established east coast gas producers/developers may convert undeveloped 2P Reserves to Developed or convert Contingent Resources (2C) to 2P Reserves, or new gas explorers/developers appear.
- LCK meeting all licensing and approvals as per the Petroleum and Geothermal Energy Act (PGE) in South Australia, i.e., state approval to develop the LCEP.
- Community buy-in, i.e., establishing and maintaining a "social licence" to operate with landowners (indigenous and pastoral), and regional communities. We note that in LCK's September 2019 Quarterly Update, results from a Community Sentiment survey stated that "...potential benefits from the energy project outweigh the concerns. They have hope that the project will bring renewed prosperity to the area and are optimistic that new jobs, services and amenities will be available to them as a by-product of the Leigh Creek Energy Project".
- **Timely progression on gas and fertiliser commercialisation options.** Central to this progress is securing long-term gas and/or electricity offtake contracts/commercial arrangements and securing funding (cost of funding / funding mix). **There is no guarantee when, or if, commercial offtake agreements or JV partnerships will be successfully negotiated between LCK and potential third parties.**
- Technical risks associated with the ISG process, geology risks associated with the coal Resource, surface processing risks associating with cleaning the syngas to methane.
- Key personnel risk.
- **Working capital requirement.** With poor visibility on the timing of revenue/income streams, we assume near-term working capital and capex requirements of ~A\$8mpa will be funded from FY21E via future capital raisings at an assumed issue price of A\$0.20ps.

Speculative Buy to
 A\$0.60ps

Chairman and MD information (Source: 2019 Annual Report)

Leigh Creek Energy Limited is a public company incorporated and domiciled in Australia and listed on the Australian Securities Exchange.

The directors present their report together with the financial statements of the consolidated entity, being Leigh Creek Energy Limited ("the Company" or "Leigh Creek Energy") and its controlled entities ("the Group") for the year ended 30 June 2019.

Directors

The names of the directors in office at any time during or since the end of the year are:

Daniel Justyn Peters (appointed 28 November 2014)
Phillip Staveley (appointed 5 December 2017)
Gregory English (appointed 22 September 2015)
Murray Chatfield (appointed 30 June 2016)
Zhe Wang (appointed 1 July 2017)
Zheng Xiaojiang (appointed 5 December 2017)

Directors have been in office since the start of the financial year to the date of this report unless otherwise stated.

Information on continuing Directors

Daniel Justyn Peters LL.B, BA (Politics/Jurisprudence) GDLP



Executive Chairman

Audit and Risk Committee Member

Director since 2014

Experience & expertise

Mr Peters joined Linc Energy soon after its listing on the ASX when Linc Energy was considered a world leader in underground coal gasification. In his six years at Linc Energy Mr Peters held the positions of General Manager Environment and Government Relations, General Manager Business Development, Executive General Manager North Asia and finished as Executive General Manager of Investor Relations.

Prior to joining Linc Energy Mr Peters was employed as National Property and Environment Manager and head of North Asia for Airservices Australia, and prior to his time with Airservices Australia Mr Peters was employed at the Queensland Environmental Protection Authority (EPA) as head of Investigations and Compliance and as acting Director of Central and Northern Regions. He managed the integration of the environmental regulation of the Queensland Mining Industry into the EPA. His experience across a broad range of business units from both government and private sector will prove invaluable in developing the Leigh Creek Energy project.

Other current listed directorships: None

Previous listed directorships (last three years)

Emperor Energy Ltd – resigned 27 March 2019

Phillip Staveley CPA, BA (Acc) (Hons), Dipl Btr



Managing Director

Director since 2017

Experience & expertise

Mr Staveley is a qualified Accountant who has 30 years' experience working in the resources sector.

He started his career in the oil and gas sector working for Schlumberger in London, followed by a number of years with SAGASCO and SAOG (South Australian Oil and Gas Company). He spent almost ten years with Normandy Mining Ltd. Whilst with Normandy he fulfilled a number of planning, finance, M&A and commercial roles, including the establishment of a Group Supply Function and three years based in Rio de Janeiro as the CFO of TVX Normandy Americas.

Since 1998 he has been involved in mining and contracting companies in the position of CFO and more latterly, CEO roles with an emphasis on strategy and corporate finance.

Other current listed directorships: None

Previous listed directorships (last three years)

Oakdale Resources Limited

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Alan Hill
Executive Chairman
Phone: +61 8 9288 3388
ahill@stateone.com.au

Ric Heydon
Equities & Derivatives Advisor
Phone: +61 8 9288 3307
rheydon@stateone.com.au

Mark Sullivan
Institutional Dealer
Phone: +61 2 9024 9134
msullivan@stateone.com.au

Thomas Tan
Equities Advisor
Phone: +61 2 9024 9131
ttan@stateone.com.au

Morris Levitzke
Equities Advisor
Phone: +61 8 9288 3315
mlevitzke@stateone.com.au

Graeme Johnson
Equities & Derivatives Advisor
Phone: +61 8 9288 3316
gjohnson@stateone.com.au

Yitz Barber
Equities Advisor
Phone: +61 2 9024 9124
ybarber@stateone.com.au

Tammie Wong
Equities Advisor
Phone: +61 2 9024 9133
twong@stateone.com.au

Dawn Chia
Business Development
Manager
Phone: +61 8 9288 3336
dawn.chia@amscot.com.au

David Zhang
Equities Advisor
Phone: +61 2 9024 9130
dzhang@stateone.com.au

David Brennan
Senior Investment Analyst
Phone: +61 2 9024 9142
dbrennan@stateone.com.au