29 July 2016

Manager Companies
Companies Announcements Office
Australian Securities Exchange Limited

Quarterly report for the three months to June 30, 2016

Highlights

- **Cash balance of $8.74 million at 30 June 2016.**
- **Heads of Agreement signed with Shanghai Electric Power Generation Group** (refer to ASX release dated 6 April 2016).
- **Gas Storage Exploration License** (**GSEL**) obtained (refer to ASX release dated 14 April 2016).
- **Placement to raise A$10.77m complete** (refer to ASX release dated 28 April 2016).
- **Research and Development advance finding documentation delivered to AusIndustry.**
- **Additional Independent Non-Executive Director, Mr Murray Chatfield, joins Board.**

Subsequent to quarter end the following has occurred;

- High voltage electricity transmission initial optimisation study near commissioning.
- Peaking power market study near commissioning.
- First water monitoring well completed and pressure sensors installed at the LCEP.

Leigh Creek Energy (LCK)

We are aiming to bring reliable energy to South Australia (electricity and gas), and intend to find ways of significantly reducing our carbon footprint. One of the options to do so is a by-product manufacturing of fertiliser for the State's farmers who are presently 100% dependent on imports. We have commenced a study on the feasibility of producing fertiliser. In the process we will;

- Create jobs in regional communities in the Upper Spencer Gulf area.
- Help enable new investment decisions by mines and manufacturing.

Finance

At the end of the quarter, 30 June 2016, LCK's cash balance was $8.738 million. A summary of the cash flows for the quarter are attached in the Appendix 5B.

Leigh Creek Energy Limited
PO Box 12
Rundle Mall
Adelaide SA 5000

T: +61 (0)8 8132 9100
F: +61 (0)8 8231 7574
W: www.lcke.com.au
ACN: 107 531 822

South Australian Electricity and Gas Markets

Many States and also the Federal government have in place longer term renewable energy targets.

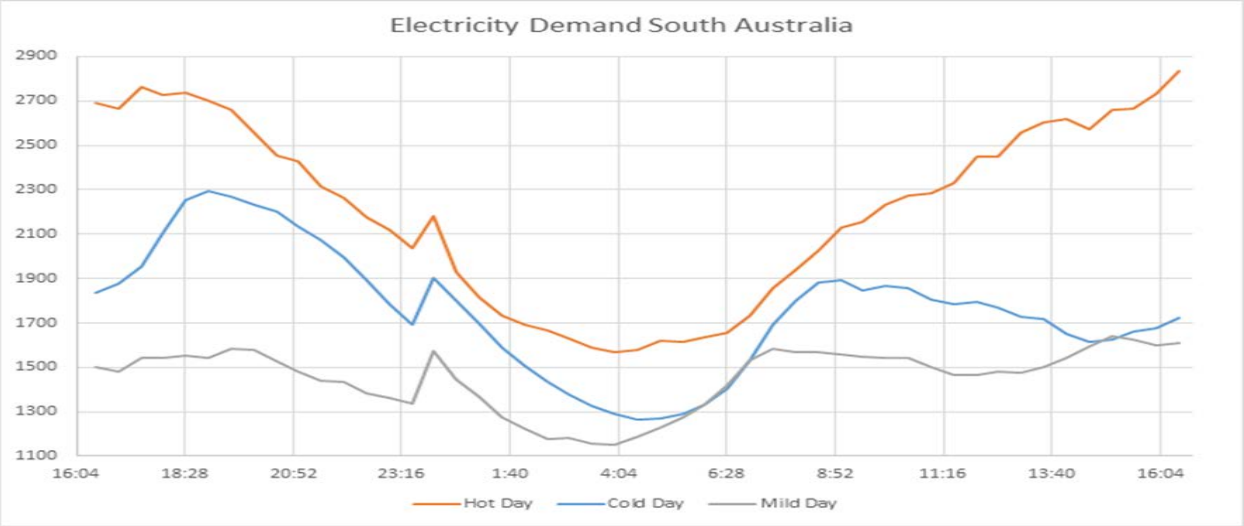
What is probably not widely appreciated is that currently Australian power generation is presently almost completely dependent on base load power generation with intermittent renewable energy making up only a small amount. Base load power is still dominated by black coal, brown coal and gas – all fossil fuels. The remaining base load power is coming from hydro which has limited capacity to expand and as Tasmania recently discovered can experience severe droughts which on rare occasions limit water supply.

Every State other than South Australia has reliable power supply and base load power is the dominant form of power generation.

With the closure (May 2016) of the coal fired base load plant at Port Augusta in South Australia, the State is now dependent on importing power from Victoria via two interconnects when renewable energy such as wind and solar power is insufficient to meet demand.

There are two issues with this situation in the medium term; power demand varies with weather and how much power can be delivered from the interconnect, and the reliability of the interconnect.

Importantly, weather and the seasonal changes have the largest impact on power demand and it is South Australia's generally long hot summers which see a large demand in power due largely to the increased use of air conditioners. This is shown by the chart below which highlights typical daily demand on a mild day (grey) a cold day (blue) and a hot day (red) in South Australia.



The key take home here is the size of power demand on a hot day. Typically in the order of 2,700 MW.

With wind energy being intermittent, Summer in the medium term becomes the season when power availability is potentially uncertain.

There is gas fired base load in South Australia, and the possibility of increasing idled gas fired generation – noting the regulator AEMO is predicting gas shortages from end 2018. This means whilst gas fired electricity may be available it may be expensive noting recent spikes in spot gas prices.

The solution to the renewable targets currently being fixed by many states is ultimately advances in battery technology which would allow low cost storage of energy generated when it was not needed and then despatched when it was needed. At present, without huge subsidies and likely technological advances around frequency stability there isn't an obvious solution.

Base Load Power and Peaking Power Opportunities

Base Load

LCK is now accelerating efforts to provide base load power into the western part of the electricity grid in South Australia. Significant base load demand exists, it is long term in nature and there is potential for increased demand from near term new investment decisions.

This area is also the longest distance from the Victorian interconnect if power needs to be imported into South Australia. LCK's business plan is to provide reliable power in return for suitably priced long term contracts. We feel this a win: win for all parties in the current and predicted power environment.

Peaking

The extent of recent Winter related power supply interruptions and rise in spot power prices in South Australia have combined to encourage us to investigate gas fired peaking power generation opportunities.

Essentially, during periods when wind energy is predicted to fall away significantly it is possible for us to generate electricity to fill the void in power supply. Clearly this requires a higher electricity price to cover the shorter number of hours the plant is used during a year.

Peaking plants already exist across the east coast generation mix.

High Voltage Transmission Routes

LCK has been working with one of the major suppliers in the high voltage transmission sector and we expect to commission a study regarding two route options for new base load power by the LCEP into the Upper Spencer Gulf region. The analysis will include issues around grid connection and the behaviour of participants in the National Electricity Market (**NEM**). Analysis will also include high level engineering options around staged expansions of transmission capacity, maintenance of transmission assets and reliability of transmission.

Participants transmitting high voltage electricity work closely with the energy regulator and in conjunction with generators of power and major demand loads for power to create an effective power system.

At all times electricity supplied by generators must be balanced with electricity demand by end users. As energy users slow their usage or there is an abrupt shutdown of plant then the power generators must respond to turn down generation.

Any sustained mismatch between this balance will cause frequency changes at some point in the high voltage system and the system is designed to "trip" (stop) to protect itself, generators and customers from damage.

The rapidly changing nature of solar and wind power supply makes the job of balancing the system more difficult. Noting also, the original electricity system was designed in the 1950 and 1960's to deliver electricity one way from base load generation towards customers.

Power Market Strategy

Electricity is not able to be stored in large quantities which results in wild fluctuations in prices on a spot basis and this is a highly specialised market to understand in great detail.

LCK is soon to commission a leading energy consultant who will provide analysis around opportunities for peaking power generation aimed at allowing the LCEP to despatch electricity at times of high electricity demand when supply from wind energy is constrained.

This will involve analysis of historic electricity demand and supply data, competing peaking power assets and their locations, and electricity prices. It will also include forecast changes in demand and supply.

Leigh Creek Energy Project (LCEP)

Leigh Creek Energy (**LCK**) is developing the LCEP using in situ gasification (**ISG**) methods. This will initially deliver pipeline methane into the supply constrained gas market and generate reliable electricity supply for South Australian users.

The LCEP is already connected to the east coast electricity grid, however this transmission line has a low capacity sufficient only to start modest plant assets.

The LCEP will need to construct a base load power generation plant for its own needs ahead of commissioning plant downstream being eventually; additional power assets, gas clean up, gas compression and fertiliser assets.

Power production opportunities have been narrowed to two areas;

1. Base load to industrial users – with our aim to seek long term contracts, and
2. Peaking power into the grid – when wind energy is not despatching in sufficient volumes to support existing demand, most likely to occur during summer.

Gas market opportunities continue to be monitored in advance of formal commencement of a farm-out process on the 100% owned LCEP. We expect this process will extend into mid 2017 so that final interested short listed parties have an opportunity to absorb data from the gas demonstration.

Pre Commercial Gas Demonstration Facility

The engineering and approvals work for the ISG pre commercial gas facility continue. Successful operation of the pre commercial facility will result in the data and knowledge needed to finalise the commercial phase facility designs.

The pre commercial facility will use commercial scale equipment and for this reason the transition from pre commercial to commercial will only require replication.

The first water monitoring well was completed after the end of the quarter. Eight (8) water pressure monitors have been installed at various positions and all safety and management systems were successfully applied.

Base line environmental studies continue and relevant documentation around gas production approvals are being collated.

The cold and wet weather recently experienced in South Australia and widely reported because of power interruptions also impacted drilling operations at the LCEP resulting in some lost time. We now expect first gas production to occur in the first quarter of 2017, a delay from the previous estimate of the end of December 2016.

CO_2 Sequestration

Initial work on carbon capture, carbon sequestration and consumption of CO_2 within various products has commenced in our efforts to reduce the carbon footprint of the LCEP. CO_2 can be consumed in the manufacture of Urea fertiliser, a common nitrogen based product.

Many presently known ways to consume CO_2 have been documented and assessed by LCK and deemed likely non-viable on grounds of their high cost or low effectiveness, or combination of both factors.

One simple way which we are pursuing via more detailed initial analysis is accelerated tree growth. Trees simplistically breathe in CO_2 and produce oxygen as a by-product.

Plants and trees grow faster if there are increased CO_2 levels however other factors play a role in a trees ability to increase their take up of CO2, for example;

1. As temperatures fall tree growth slows and eventual stops.
2. If sufficient nitrogen based nutrients are not available, then CO_2 uptake is constrained and tree growth is limited.

Fortunately, the LCEP is likely to have available waste heat and once a fertiliser plant is constructed there will be readily available nitrogen fertilisers.

Placement raising

LCK announced raising $10.77 million pre applicable fees on 28 April 2016 by way of new share issuance at $0:30 per share and a 1 for 2 offer of options exercise price $0:50.

The options have now been listed on the ASX and trade with the code **LCKO**.

New ordinary shares went to a range of investors, including;

- Existing shareholders, and
- New investors being Fund managers in Australia and the United States.

Research and Development

LCK has completed documentation regarding its planned spending and how a component of this includes research and development (R&D) efforts.

The Australian Federal Government offers an incentive for companies to invest in R&D by way of a rebate which effectively returns $45 for every eligible $100 spent by a company. LCK has provided documentation to AusIndustry to obtain an "Advance Finding" of our spend eligibility.

This effort in turn helps support our intention to seek factoring for these receivables. In essence, LCK may be able to obtain a facility which allows drawdown of funds based on a percentage of future receivables as a result of eligible R&D spend. This is then an off-balance sheet means of financing which we aim to use to defer and reduce equity needs.

Gas Storage Exploration Licence

LCK has obtained a Gas Storage Exploration License (**GSEL 662**) which will allow the LCEP to investigate the storage of product gas (methane) but also CO_2. Please refer to ASX release dated 14 April 2016.

The LCEP will create cavities during the ISG process, however these will not be available for use as storage in the first few years because of the slow growth in cavity size and because of their use as ISG production sites. Potential for gas storage occurs a number of years after commercial ISG production.

Nearer Term Gas Storage Investigations

As part of investigations into peaking power generation opportunities in order to produce reliable energy for South Australia when wind is not blowing LCK is investigation alternate near term gas storage options.

Gas fired peaking power generation would turn on and off in response to the vagaries of wind power generation. Operationally this requires an ability to start and stop gas fuel supply. One way to facilitate intermittent fuel use is for the LCEP to store gas, possibly in surface tanks, and this is to be investigated.

We are also investigating the ability to configure individual ISG panels in such a way as we can schedule these so as to alter incremental total output at short notice. We are also investigating options around electricity use or storage at times when despatches into the wider grid are not profitable, regarding power peaking operation. Gas storage needs, in terms of the days required between windy days, are to be assessed following the electricity market study which is soon to be commissioned.

Tenements

As of 30 June 2016, LCK had a 100% interest in the licences listed below, all in South Australia, through LCK's wholly owned subsidiary ARP TriEnergy Pty Ltd.

- Petroleum Exploration Licence 650
- Gas Storage Exploration Licence 662
- Petroleum Exploration Licence Application 582
- Petroleum Exploration Licence Application 643
- Petroleum Exploration Licence Application 644
- Petroleum Exploration Licence Application 647
- Petroleum Exploration Licence Application 649
- Exploration Licence 5596
- Exploration Licence 5597

Heads of Agreement signed with Shanghai Electric Power Generation Group

LCK announced the signing of a Heads of Agreement (**HoA**) with Shanghai Electric Power Generation Group (**SEC**) to discuss the formation of a joint venture (**JV**) company to build, own and operate a gas fired power station in South Australia. Please refer to ASX release 6 April 2016. Work continued by both parties during the quarter and it is anticipated that additional detailed discussions will occur in the current quarter.

Commenting on the quarterly progress, Executive Chairman Justyn Peters said:

"LCK has made great progress over the last quarter. The agreement with Shanghai Electric (SEC) demonstrates the potential for LCK to generate baseload electricity. That such a large organisation as SEC is prepared to work with us on this project demonstrates confidence in the process and the market opportunity in South Australia. I am sure it has not gone without notice that nearly every day over the last month there has been extensive media reporting on the problems with lack of base load power in South Australia. We see LCK as having the solution to this problem and look forward to advancing this project.

The successful capital raise, the engagement of consultants to look at different power demand and delivery scenarios are important for LCK to ensure make we make the right commercial decisions. We also have commenced ground water monitoring and are well advanced on our environmental studies needed for the gas demonstration approval process."

For further information contact:

Justyn Peters
Executive Chairman
Leigh Creek Energy
Ph: (08) 8132 9100

Media

Adam Jarvis
Six Degrees Investor Relations
Ph: 0424 297 736
Email: adam.jarvis@sdir.com.au

About Leigh Creek Energy

*Leigh Creek Energy Limited (LCK) is an emerging gas company focused on developing its Leigh Creek Energy Project (LCEP), located in South Australia. The LCEP will produce high value products such as methane, electricity and potentially fertiliser from the remnant coal resources at Leigh Creek utilising In Situ Gasification (**ISG**) technologies, and will provide long term growth and opportunities to the communities of the northern Flinders Ranges and South Australia.*

The Company is committed to developing the LCEP using a best practice approach to mitigate the technical, environmental and financial project risks to as low as can be reasonably achieved.

Leigh Creek Energy – bringing reliable energy to South Australia.

Rule 5.5

Appendix 5B

Mining exploration entity and oil and gas 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, 01/05/2013

Name of entity

Leigh Creek Energy Limited

ABN	Quarter ended ("current quarter")
31 107 531 822	30 June 2016

Consolidated statement of cash flows

		Current quarter $A'000	Year to date (12 months) $A'000
Cash flows related to operating activities			
1.1	Receipts from product sales and related debtors		
1.2	Payments for (a) exploration & evaluation	(718)	(1676)
	(b) development		
	(c) production		
	(d) administration	(1393)	(4562)
1.3	Dividends received		
1.4	Interest and other items of a similar nature received	16	20
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Other (provide details if material)		
	Net Operating Cash Flows	(2095)	(6218)
	Cash flows related to investing activities		
1.8	Payment for purchases of: (a) prospects		
	(b) equity investments		
	(c) other fixed assets		
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)		
	Net investing cash flows		
1.13	Total operating and investing cash flows (carried forward)		

+ See chapter 19 for defined terms.

1.13	Total operating and investing cash flows (brought forward)	(2095)	(6218)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	10055	13482
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings		
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Net financing cash flows	10055	13482
	Net increase (decrease) in cash held	7960	7264
1.20	Cash at beginning of quarter/year to date		
1.21	Exchange rate adjustments to item 1.20		
1.22	**Cash at end of quarter**	8738	8738

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	171
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

1.23 includes salaries and directors fees

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

N/A

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	Nil	-
3.2	Credit standby arrangements	Nil	-

Estimated cash outflows for next quarter

		$A'000
4.1	Exploration and evaluation	4034
4.2	Development	-
4.3	Production	-
4.4	Administration	1532
	Total	**5566**

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	8659	691
5.2	Deposits at call	79	87
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	8738	778

+ See chapter 19 for defined terms.

Changes in interests in mining tenements and petroleum tenements

		Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed	N/A			
6.2	Interests in mining tenements and petroleum tenements acquired or increased	N/A			

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	**Preference +securities** *(description)*	N/A			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	**+Ordinary securities**	265,894,441	265,894,441 (Of which 104,767,190 are restricted for 2 years from 03.07.2015)		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	35,374,969	35,374,969		

+ See chapter 19 for defined terms.

7.5	+**Convertible debt securities** (*description)*	N/A			
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	**Options** *(description and conversion factor)*	1,000,000 1,000,000 2,000,000 10,250,000		*Exercise price* 0.212 *Exercise price* 0.25 *Exercise price* 1.50 *Exercise price* 0.30	*Expiry date* 19.10.2019 *Expiry date* 19.10.2020 *Expiry date* 31.07.2020 *Expiry date* 30.11.2020
7.8	Issued during quarter	17,687,463 6,000,000	17,687,463	Exercise price 0.50 Exercise price 0.20-0.26	Expiry date 6 June 2018 Expiry date 31 October 2018
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	**Debentures** *(totals only)*				
7.12	**Unsecured notes** *(totals only)*				

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 (see note 5).

2 This statement does give a true and fair view of the matters disclosed.

Sign here: Date: 29 July 2016

Company secretary

Print name: Jordan Mehrtens

+ See chapter 19 for defined terms.

Notes

1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.

2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.

3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.

4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.

5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

== == == == ==