29 October 2021, ASX ANNOUNCEMENT (ASX:LCK)

Quarterly Report - September 2021

Leigh Creek Energy Limited ("LCK" or "the Company") provides this operations update for the three months to 30 September 2021.

Highlights

1. Carbon Capture and Storage (CCS) feasibility verified
2. Voluntary commitment to carbon emissions auditing and reporting
3. LCUP progress
4. Bankable Feasibility Study (BFS) commenced

LCK Managing Director Phil Staveley commented on the September 2021 quarter's activities:

"The Company has continued to progress with the early stages of the commercial project. The EPCC is now awarded, the upstream generators for Stage 1 acquired and FEED and BFS are underway."

"Importantly, the CCS feasibility study has been confirmed, reinforcing the sustainability of the site. We have reinforced our commitment to environmental targets, with the LCUP now set to be carbon neutral from 2022 – eight years earlier than previously planned."

"As the sector moves to a low-carbon future, this will be a significant drawcard for potential offtake, strategic partners and debt providers as we create the first large-scale carbon neutral fertiliser project in the world."

"The Leigh Creek Urea Project will be one of the largest pieces of infrastructure in South Australia, and will create and support thousands of jobs during construction and operations. We remain focussed on ensuring the LCUP becomes a key supplier for domestic and international agriculture markets."

Successful Carbon Capture and Storage Feasibility Study

Leading industry engineering group inGauge recently completed an independent feasibility study into all the technical aspects of LCK's proposed CCS at the LCUP.

LCK will store excess CO_2 from the production of gas and manufacture of urea in the void created underground by the production of syngas.

The study included engineering and geological aspects of our approach and confirmed that the LCUP has all the critical elements for large scale retention of CO_2 within an underground storage facility, including:

- Reservoir presence and sufficient capacity;
- Seal presence;
- Seal thickness;
- Seal integrity;
- Injectivity; and
- Sufficient depth.

Further, all the critical elements for successful carbon capture and storage are present or manufactured on site making the CCS proposal not only viable, but commercially feasible.

An important factor is the entirely new LCUP – CCS can be built into the design. Front-End Engineering and Design (FEED) of the CCS facilities is the next step in the process which will be incorporated in the design of the urea facility, scheduled for 2022.

Carbon Capture and Underground Storage

CCUS	LCK	Other Organisations
Identification of suitable site	Not required	Extremely costly and risky
Transport of CO_2 to site for storage	Not required	Costly
Equipment to transport CO_2 to site for storage	Not required	Costly
Re-engineering of Plant for CO_2 storage	In design process	Costly
CCUS	Achievable	Achievable
Geology	Closed Basin, low permeability	Open reservoir, undetermined permeability
CO_2 sequestration monitoring	Already implemented	Required
Site Characterisation	Completed	Required
Drilling & casing material suitability	Design completed	Required
Overall CCUS process	Achievable – low cost	Achievable – very high cost
Feasibility	Complete	Not known

CCUS Feasibility verified 40

Carbon Neutral from 2022

The LCUP will carbon neutral from 2022 – eight years earlier than previously planned. This voluntary carbon neutral program includes stage 1 commercial development and operations commencing in early 2022.

To support its commitment LCK has been accepted as a signatory to the United Nations Global Compact (UNGC) in 2020 and more recently joined the Climate Market Institute (the peak carbon industry body in Australia) and committed to the TCFD, which requires transparent, reliable, verifiable, and more importantly auditable reporting on climate related financial matters.

The carbon neutral program enables LCUP to lead the industry in ESG principles and provide a significant strategic advantage as well as benefits for all stakeholders.

LCUP Progress

The Company's flagship project has been renamed the Leigh Creek Urea Project, or LCUP, from its previous named "Leigh Creek Energy Project", or "LCEP". The name change reflects the Company's transition from energy to urea which has occurred over the past few years. The project started out as an energy (gas, electricity) project but this has evolved as the economic case for domestic urea manufacture has developed, reducing the energy project to a crucial, but ever smaller part of the project.

The LCUP's Engineering, Procurement, Construction, Commissioning (EPCC) contractor, leading South Korean global engineering, and construction contractor, DL E&C Co. Ltd ('Daelim') (refer ASX announcement 1 July 2021) continues to progress the work activities associated with FEED for Stage 2 of the LCUP. Due to travel restrictions we have not been able to get key EPCC personnel to site to commence on ground work which has also seen a delay in finalising licencing agreements. As such in accordance with our contract with Daelim we have exercised our contractual right to delay the delivery of the BFS and FEED by up to 45 days. It is hoped that all parties can make up for this lost time. However, where possible Daelim are working ahead as expected. Key activities include:

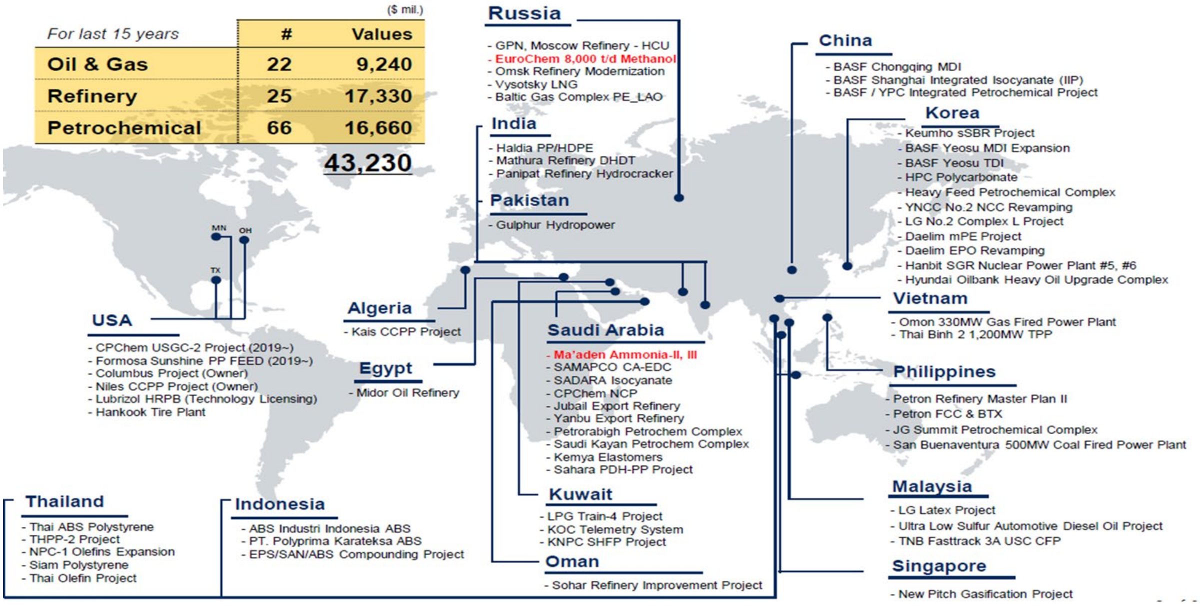
- Mobilisation of the full engineering team and commenced the employment of Australian engineers to ensure the project schedule remains on track for a Final Investment Decision (FID) by Q4 2022. Subject of COVID border access, an expert team will be mobilised in the next quarter for starting the route survey.
- NexantECA, an independent third party, has been appointed to conduct the BFS for the LCUP, which has commenced.
- EMM Consulting Pty Ltd has been appointed to assist LCK with the above ground development approval process of the LCUP, which has commenced.

About Daelim – our "Partners" in the Project

Incorporated in 1939, Daelim is the flagship company of the DL Group, which consists of thirteen affiliates. As a leader in the construction sectors in South Korea, Daelim provides a wide variety of products and services.

Daelim is the eighth largest EPC contractor in the world, has successfully completed more than 600 projects worldwide.

Since its first overseas project in Vietnam in 1966, the construction division has successfully completed various construction, civil engineering, and plant projects in more than 40 countries worldwide. It has been recognized for its technical leadership and strong competitiveness in the global market.



LCK has acquired the generators required for the upstream (Stage 1) commercialisation of the LCUP. The Siemens generators, acquired from Drivetrain Australia, are the first long lead items procured and will be installed and tested on site ready to receive first syngas from production wells. Drivetrain Australia expects the Siemens engines to arrive from Spain in early 2022.

Urea Offtake Agreements

LCK is progressing with offtake discussions with several parties. It should be of no surprise that the level of interest by other parties is serious given international developments over the last three months. Gas is the feedstock for urea production and gas prices have dramatically increased around the world. European gas prices have increased to such a level that many European manufacturers have put plants in care and maintenance. Asian gas prices have almost doubled and it is no surprise that China has now stopped the export of urea as China is concerned about food security and is mandating that all urea produced in China is to be used in the domestic market. Finally, Henry Hub gas prices in America are now at record highs. We have always been in the enviable position where our gas feedstock price is not subject to any of these variables. It has simply highlighted our cost advantage. The world gas prices may change but our cost of production remains steady at $1/GJ. When our original PFS was delivered urea prices were at AUD$400 per tonne. Urea is now selling at over AUD$900 per tonne. Delivering on an offtake agreement where LCK gets the benefit of the increase in urea prices rather than an offtaker has been front and centre in our discussions with offtakers.

These discussions will be concluded in a structured manner in conjunction with strategic partner and financing discussions.

Cooper Basin Petroleum Licence

Leigh Creek Oil and Gas Pty Ltd ("LCOG") continues to develop its asset base. It has been awarded Petroleum Exploration Licence 676 ("PEL") in key South Australian Cooper Basin oil and gas acreage.

LCOG has a diversified portfolio of assets which includes oil and gas interests in the Cooper and Eromanga Basins. The Cooper Basin was selected by LCK as an area to invest in as it provides a low cost of entry, is relatively low risk, has potential for near-term revenue as well as a favourable and stable regulatory regime in the South Australian and Queensland governments.

Having recently completed a Native Title agreement, LCOG has now been granted PEL 676 by the South Australian Minister of Energy and Mining which permits exploration to progress in line with the agreed program of work. The program will focus on leads identified from existing 2D seismic with 3D seismic required to be undertaken to mature drillable targets.

Engagement with targeted parties to farm-down a portion of this permit to an operator is the initial priority in line with the strategy of maximising exposure across the Cooper and Eromanga Basins.

Progress continues on other oil and gas interests exploring opportunities to expand the oil and gas portfolio.

Finance & Corporate

As of 30 September 2021, the Company's total cash balance was $17.7 million.

The accompanying Appendix 5B (Quarterly Cashflow Report) includes a summary of cashflow inflows and outflows for the quarter, including amounts in item 6.1 which were executive and non-executive director fees paid as salaries and wages.

The Board of Leigh Creek Energy Limited authorised this announcement to be given to the ASX.

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About the Leigh Creek Urea Project

The Leigh Creek Urea Project (LCUP) is Leigh Creek Energy's (ASX:LCK) flagship project, developing low-cost nitrogen-based fertiliser for local and export agriculture markets. Located in South Australia, 550 kilometres north of Adelaide, the LCUP will initially produce 1Mtpa (with potential to increase to 2Mtpa) of urea.

The AUD 2.3 billion capex investment in the LCUP will be one of the biggest infrastructure projects of its type in Australia, providing long term economic development and employment opportunities for the communities of the Upper Spencer Gulf region, northern Flinders Ranges and South Australia.

The LCUP will be the only fully integrated urea production facility in Australia, with all inputs for low carbon urea production on-site. Average nominal operating cost are forecast to be A$109 per tonne which is within the lowest cost quartile of the global urea production cost curve. Pre-tax leveraged Net Present Value (NPV) is AUD 3.4 billion, with an Internal Rate of Return (IRR) of 30%.

LCK has a comprehensive environment, social and governance strategy. It has produced syngas within all approved environmental parameters set by the regulator and will be **carbon neutral from 2022.**

The LCUP will be developed in 2 commercial stages:

Stage 1 consists of:

1. Construction of gasification wells to provide energy (syngas) for the project; and
2. 5 MW gas fired power generation.

Stage 2 consists of:

1. Expansion of gasification fields;
2. 100MW gas fired power generation;
3. Ammonia facility;
4. Urea facility; and
5. Logistics, loading and transport.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity
LEIGH CREEK ENERGY LIMITED

ABN	Quarter ended ("current quarter")
31 107 531 822	September 2021

	Consolidated statement of cash flows		Current quarter $A'000	Year to date (3 months) $A'000
1.	**Cash flows from operating activities**			
1.1	Receipts from customers			
1.2	Payments for			
	(a)	exploration & evaluation		
	(b)	development		
	(c)	production		
	(d)	staff costs	(785)	(785)
	(e)	administration and corporate costs	(1,335)	(1,335)
1.3	Dividends received (see note 3)			
1.4	Interest received			
1.5	Interest and other costs of finance paid			
1.6	Income taxes paid			
1.7	Government grants and tax incentives			
1.8	Other – movements in long-term bank deposits		(630)	(630)
1.9	**Net cash from / (used in) operating activities**		**(2,750)**	**(2,750)**

2.	**Cash flows from investing activities**			
2.1	Payments to acquire:			
	(a)	entities		
	(b)	tenements		
	(c)	property, plant and equipment	(30)	(30)
	(d)	exploration & evaluation	(2,322)	(2,322)
	(e)	investments		
	(f)	other non-current assets		

	Consolidated statement of cash flows	**Current quarter $A'000**	**Year to date (3 months) $A'000**
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment		
	(d) investments		
	(e) other non-current assets		
2.3	Cash flows from loans to other entities		
2.4	Dividends received (see note 3)		
2.5	Other (provide details if material)		
2.6	**Net cash from / (used in) investing activities**	**(2,352)**	**(2,352)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)		
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options		
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(3)	(3)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings	2	2
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (provide details if material)		
3.10	**Net cash from / (used in) financing activities**	**(1)**	**(1)**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	22,813	22,813
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,750)	(2,750)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,352)	(2,352)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(1)	(1)

	Consolidated statement of cash flows	**Current quarter $A'000**	**Year to date (3 months) $A'000**
4.5	Effect of movement in exchange rates on cash held		
4.6	**Cash and cash equivalents at end of period**	**17,710**	**17,710**

5.	**Reconciliation of cash and cash equivalents** at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	**Current quarter $A'000**	**Previous quarter $A'000**
5.1	Bank balances	16,187	21,290
5.2	Call deposits	1,523	1,523
5.3	Bank overdrafts		
5.4	Other (provide details)		
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**17,710**	**22,813**

6.	**Payments to related parties of the entity and their associates**	**Current quarter $A'000**
6.1	Aggregate amount of payments to related parties and their associates included in item 1	621
6.2	Aggregate amount of payments to related parties and their associates included in item 2	

Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.

Explanation:

Executive and Non-Executive Directors fees.

Piper Alderman lawyers were paid for legal services rendered to the Group. Previous Non-Executive Director Mr Greg English is a partner at Piper Alderman lawyers.

7.	**Financing facilities** *Note: the term "facility' includes all forms of financing arrangements available to the entity.* *Add notes as necessary for an understanding of the sources of finance available to the entity.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
7.1	Loan facilities		
7.2	Credit standby arrangements		
7.3	Other (please specify)		
7.4	**Total financing facilities**		

7.5	**Unused financing facilities available at quarter end**	
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.	

8.	**Estimated cash available for future operating activities**	**$A'000**
8.1	Net cash from / (used in) operating activities (item 1.9)	(2,750)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(2,322)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(5,072)
8.4	Cash and cash equivalents at quarter end (item 4.6)	17,710
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	17,710
8.7	**Estimated quarters of funding available (item 8.6 divided by item 8.3)**	3.49

Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.

8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:

8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?

Answer:

8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?

Answer:

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer:

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.

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

Date: 29 October 2021

Authorised by: By the Board
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, 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. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [*name of board committee – eg Audit and Risk Committee*]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.