

18 January 2021 ASX RELEASE (ASX:LCK)

EPCM Contracts Awarded for Stage 1 Commercial

Leigh Creek Energy Limited (“LCK” or “the Company”) has awarded two Engineering, Procurement, Construction and Management (EPCM) contracts for the Stage 1 Commercial Development of the Leigh Creek Energy Project.

EPCM Contracts have been awarded as follows:

- inGauge Energy Pty Ltd (inGauge): Upstream: contracted to manage drilling services for development of initial gasification wells to provide feedstock syngas for a 5MW power plant
- Prudentia Process Consulting Pty Ltd (Prudentia): Downstream: contracted to manage selection, engineering, construction, and commissioning of the 5MW gas fired power plant

LCK’s Managing Director, Phil Staveley commented that, “Awarding of the EPCM contracts for Stage 1 Commercial Development of the LCEP is another exciting milestone for the company, which we can now progress following award of our Petroleum Production Licence on 25 November 2020. While our recently completed in-situ gasification (ISG) and urea production Pre-Feasibility Study highlighted the strong economic returns and strategic rationale for the development of a urea production facility at the LCEP, these contracts start to bring it to life. Once the larger urea project is developed the 5MW power plant will be used in the ISG process. With this LCK moves closer to becoming a significant supplier of low-cost, domestically-produced urea providing additional security to a critical product for the Australian agricultural sector.”

LCEP Commercial Stages

The two commercial stages of the LCEP will be developed in parallel. Award of the EPCM is another milestone towards achieving the LCEP’s Stage 1 Commercial Development.

Stage 1 Commercial Development



Stage 2 Commercial Development



The LCEP Commercial Development stages comprise both upstream (underground ISG operations) and downstream (above ground urea manufacturing) components. Stage 1 Commercial Development is a closed system power supply from a series of ISG wells (upstream) sufficient to power a 5MW gas fired power plant (downstream).

Now that LCK has been issued with its Petroleum Production Licence (PPL) it is finalising the upstream ISG production Environmental Impact Report (EIR).

Stage 2 Commercial Development comprises large scale gas drilling and production, plus construction of a 1Mtpa urea production facility. The Company recently completed a Pre-Feasibility Study (PFS) on the urea production option, which highlighted the robust economics for development of the project, which will provide fertiliser to domestic Australian and export markets.

Upstream Drilling Management Services

inGauge Energy Pty Ltd (inGauge) will manage drilling services for the upstream component of Stage 1 Commercial Development.

inGauge is Australia's largest onshore drilling and completions project management company. It has a proven track record for delivering safe and successful drilling, completions, and plug and abandonment programs for Australian Operators and Government Agencies. Its client base exceeds 50 companies across more than 90 project assignments in Australia and New Zealand.

inGauge is accredited to:

- ISO 90001:2015 Quality Management Systems
- AS/NZS 4801:2001 Occupational Health & Safety Management Systems
- ISO 14001:2015 Environmental Management Systems

Scope of Work

The Scope of Work for Drilling Management Services includes:

- Investigating options for well and gasifier design and integrity measures
- Managing approval requirements in conjunction with LCK
- Procurement (tender scope, specifications, recommendation and assistance) of drilling contractors
- On site drill operations management

Downstream Above Ground Facilities

Prudentia Process Consulting Pty Ltd (Prudentia) will manage selection, engineering, construction and commissioning of above ground facilities for Stage 1.

Prudentia is an innovative, multi-discipline engineering and project delivery services provider with a demonstrated track record in specialised small to medium projects. Headquartered in Brisbane with a second main office in Adelaide they have an active resource sector client base exceeding 20 companies. Current assignments include research and development, pilot plant design and operation, project studies, detailed design, project implementation, and ongoing operational support and optimisation.

Scope of Work

The Scope of Work for Above Ground Construction includes:

- Technology selection, engineering and design development

- Development of project documents, specifications, and drawings for use with procurement and construction activities
- Development and tracking of project controls including schedule and budget
- Development of scope of work packages and management of procurement activities
- Construction and commissioning support

LCK will separately contract for long lead items that will then be managed by respective EPCM contractors.

LCK has worked with both inGauge and Prudentia for several years. inGauge managed previous drilling campaigns including the Pre-Commercial Demonstration and Prudentia have undertaken several study options for the LCEP in recent years including work on the recent PFS and provided engineering services to the Pre-Commercial Demonstration Plant.

The Leigh Creek Energy Project

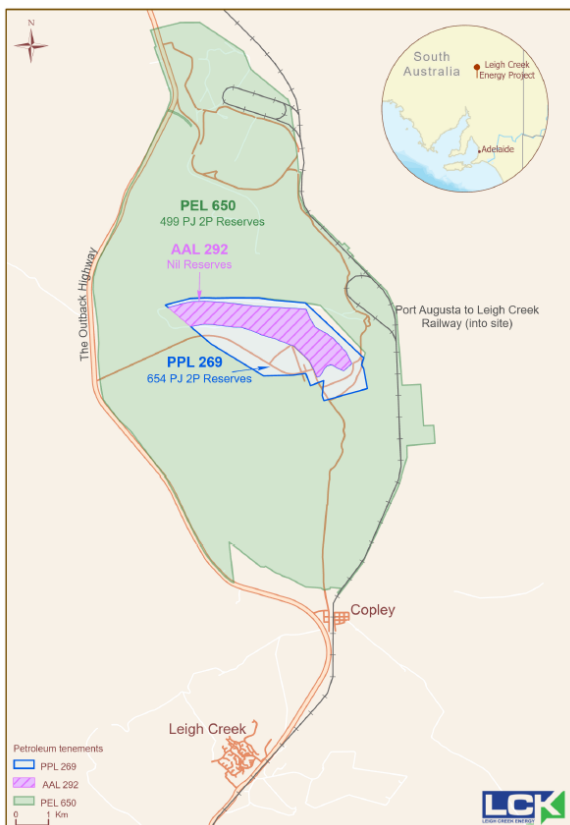


Figure 1 – LCK site area

The 100% owned LCEP (see Figure 1) is located in South Australia 550km north of Adelaide. The LCEP sits within PEL 650 and PPL 269, which overlay the existing Leigh Creek Coalfield. The LCEP aims to initially produce 1Mtpa of urea utilising ISG technologies. The project will provide long term growth and employment opportunities to the communities of the northern Flinders Ranges and South Australia.

The project contains 1,153PJ of 2P gas reserves plus 301.2Mt of indicated and inferred coal resources.

The positive project economics for the development of a urea production facility supported by syngas feedstock were confirmed in the Company's recently released pre-feasibility study (PFS). The PFS outlined an average nominal production cost of \$109/tonne which places LCEP in the lowest cost quartile of the global urea cost curve. Pre-tax leveraged Net Present Value (NPV) is A\$3.4 billion, with an Internal Rate of Return (IRR) of 30%. The total capital cost estimate is \$2.6 billion.

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

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About Leigh Creek Energy

Located in South Australia, Leigh Creek Energy Limited (ASX:LCK) is an emerging energy company focused on developing its Leigh Creek Energy Project (LCEP). The LCEP will produce nitrogen-based fertiliser and/or hydrogen products at Leigh Creek by utilising In Situ Gasification technologies.

LCK is committed to developing the LCEP using a best practice approach to mitigate the technical, environmental and financial project risks.

For information on the ISG process [CLICK](#)

Reserves Disclosure Statement

The PRMS reserves estimates stated herein are based on, and fairly represent, information and supporting documentation prepared by Timothy Hower of MHA Petroleum Consulting, Denver USA. MHA Petroleum Consultants LLC is now part of Sproule International Limited. Mr Hower is a member of the Society of Petroleum Engineers and has consented to the use of the Reserves estimates and supporting information contained herein in the form and context in which it appears. A copy of the report by Mr Hower is available to view at www.lcke.com.au.