

Thursday, 15 November 2018: ASX ANNOUNCEMENT (ASX: LCK)

Pre-Commercial Demonstration progress

- Initial gas flows continuing for 35 days
- Additional fuel source to be re-ignited to accelerate gasifier development
- Operating parameters being optimised

Leigh Creek Energy Limited (ASX: LCK) ("LCK" or "the Company") is pleased to provide the following clarification about operational matters related to the Company's Pre-Commercial Demonstration facility (PCD) of the Leigh Creek Energy Project.

The Company interprets this information to be operational and not market sensitive, but to avoid any misinterpretations, has decided to provide this update to the market.

Managing Director's comments

LCK Managing Director Phil Staveley commented: "The ramp up phase was expected to be a gradual process to bring the gasifier to full efficiency, which involves managing a balance of gasifier operating parameters, such as pressure, water inflow and outflow rates. This process is continuing and importantly has not stopped since the gasifier was ignited on 10 October 2018. We continue to work closely with the Regulator to ensure appropriate oversight."

PCD Operations Update

LCK initiated the gasifier on 10 October 2018 and announced "first syngas flows" on 11 October. After initiation there is a gradual and careful process required to develop the gasifier through to full syngas production, typically needing a period of weeks and/or additional stimulation to achieve full syngas production.

Experience with ISG projects internationally and over many years shows that each coal seam that is gasified is unique and shows different behaviours during the gasification development phase. Once the process of gasification is developed, the product gases and gasifier behaviour become more normalised.

The process of developing the LCEP gasifier is continuing. The key indicators of gasifier development, being injected air flow rates, increasing temperature in the gasifier and decreasing oxygen levels in the outlet gas, are continuing. Whilst the gasifier has not yet advanced beyond the initial gas flow stage, the Company and its advisors are pleased with the following progress:

- PCD Operation for 35 days continuing the initial gas flows;
- Increased gasifier pressure and temperature; and
- Plant and Equipment operating as designed.

In addition to working on a range of adjustments to the operating parameters of the gasifier, the Company is in the process of preparing to inject an approved fuel source. As this fuel reignites it will provide an additional heat source to accelerate the gasifier development process.



T: (08) 8132 9100 W: <u>www.lcke.com.au</u> E: <u>contactus@lcke.com.au</u> Thus, in order to comply with the PCD license conditions, the Company sought and the regulator has approved a suspension of up to 4 weeks of the 90-day production period (and is not a suspension to the Company moving forward or continuing the PCD operation) while this process is being prepared.

Whilst the word 'suspension' is used, this is a technical definition pertaining to the process to allow the fuel re-ignition process to be managed with appropriate documentation and changes to site operating procedures. As an extension of the PCD 90-day period could not be granted it was appropriate to seek a suspension of up to 4 weeks to allow the 90-day timeline to re-commence once the additional fuel source was introduced to the generator.

It is the Company's view that this extension within the 90-day timeline is procedural and not material. The site has been operating in exactly the same manner since the 10th of October and continues that way now.

The 90-day demonstration period has been previously approved, and it is advantageous to LCK that an additional 4 weeks has been approved to develop the gasifier and receive the requisite information to achieve the major objectives of the PCD to:

- 1. Demonstrate safe operating conditions of the PCD; and
- 2. Provide information to the independent auditor and then certifier to upgrade a portion of the LCEP 2,964 2C resource to 2P status.

The Company looks forward to providing further updates to the market as the PCD further develops.

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About Leigh Creek Energy

Leigh Creek Energy Limited (**LCK**) is an emerging energy company focused on developing its Leigh Creek Energy Project (**LCEP**), located in South Australia. The LCEP will produce high value products such as electricity, methane (synthetic natural gas) and ammonium nitrate products (fertiliser and industrial explosives) from the remnant coal resources at Leigh Creek, utilising In Situ Gasification (**ISG**) technologies, and will provide long term stability and economic development opportunities to the communities of the Upper Spencer Gulf, 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.

Resource Compliance Statement

The information in this announcement that relates to the 2C Contingent Syngas Resource was detailed in an announcement lodged with ASX on 8 January 2016 and is available to view at www.lcke.com.au. The Company confirms that it is not aware of any new information or data that materially affects the information included in that announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. All estimates are based on the deterministic method for estimation of petroleum resources.

