

20 November 2019

ASX ANNOUNCEMENT (ASX:LCK)

## Significant Milestone achieved towards Commercial Pathway

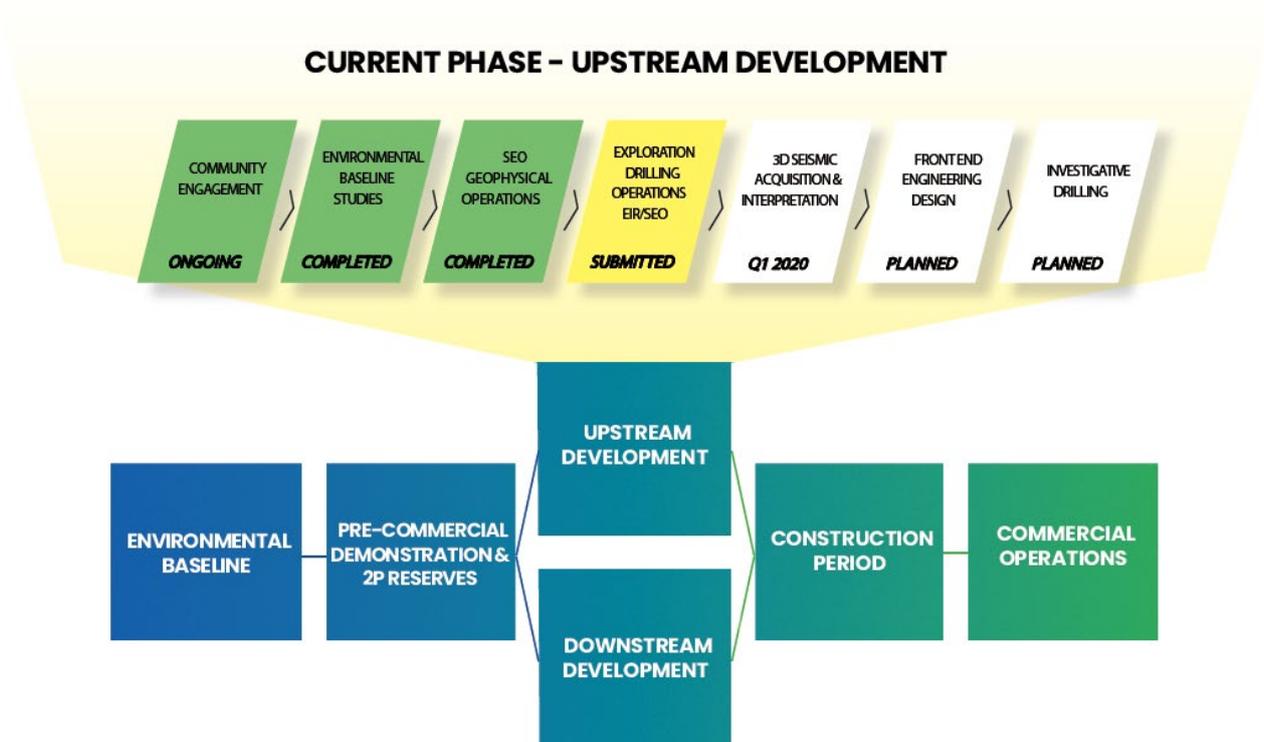
### Highlights

- ✓ **Statement of Environmental Objectives (SEO) for Geophysical Operations approved**
- ✓ **Green light for seismic acquisition to proceed across entire PEL 650 permit**

Leigh Creek Energy Limited (LCK or the Company) is pleased to announce that the Statement of Environmental Objectives (SEO) for geophysical operations has been published in the SA Government Gazette via the Department for Energy and Mining (Regulator). This allows LCK to proceed with seismic acquisition across the entire Petroleum Exploration Licence (PEL) 650 at Leigh Creek, subject to submission of Activity Notification (AN) documentation to the Regulator.

The pathway towards commercial operations since completion of our Pre-Commercial Development (PCD) activities and booking of our 1,153 PJ 2P Reserve earlier this year is shown below.

### LCK Pathway to Commercial Operations



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This update will focus on the Upstream Development phase of the Project. This phase contains all the activities required to produce syngas.

The Upstream Development activities include seismic acquisition, exploration drilling operations, front end engineering and environmental studies.

The Downstream Development activities will be the provision of the commercial production facility, which will either be a fertiliser plant or a gas plant and pipeline to produce pipeline quality gas into the east coast gas network.

The culmination of the Upstream and Downstream Development phases will be preparation of the Environmental Impact Statement (EIS) for Construction for Commercial Operations and the approval of the SEO in the SA Government Gazette.

The Upstream Development phase will be assessed under the Petroleum & Geothermal Energy Act 2000, with the Downstream Development phase being assessed under the Development Act 1993.

## Upstream Development

**The following tasks in this phase have been completed or are in progress:**

### *Geophysical*

As indicated above the major milestone achieved is the gazettal of the SEO for Geophysical Operations which allows LCK to commence preparation for seismic acquisition across the whole of our permit area within PEL 650. We are in the final process of selecting a contractor for this work.

We have also submitted our Environmental Impact Report (EIR) and draft SEO for Exploration Drilling Operations across PEL 650.

### *Environment*

A number of environmental studies are required as part of the baseline data required for the EIS.

At this stage, Phase 1 of the Biodiversity and Ecological survey has been completed. Water studies and Traffic studies are also underway.

### *Community and Stakeholder Engagement*

We are continuing to undertake community and stakeholder updates in Leigh Creek and surrounding areas. We also have opened a community shop front in Leigh Creek to enable community members to come and talk to our staff about the project when in the township. We continue to sponsor the local doctor service in Leigh Creek as well as several worthy local causes.

**The following tasks in phase are scheduled to be undertaken within the next quarter:**

Following the submission and approval of an AN to the Regulator which provides details of the activities we intend to undertake, including risk assessments and confirmation that the seismic contractor has sufficient systems in place to safely undertake the operations, 3D seismic acquisition and interpretation of an initial area will be undertaken which will provide a detailed 3D image of the subsurface geology to allow a subsurface model to be built to enable the underground gasifiers to be designed.

The seismic acquisition is scheduled to commence in Q1 CY 2020, with the processing and interpretation of the seismic data is expected to take six weeks.

Following this, investigation drilling following the approval of the SEO for Exploration Drilling Operations and AN approval, will commence when a suitable rig is available.

The aim of the investigation drilling is to validate the seismic interpretation by drilling a number of wells. The number of wells will be determined on the results of the seismic interpretation

We will also continue community and stakeholder engagement and information meetings at Leigh Creek and surrounding areas, following the recent community surveys in the area to ensure that feedback is continually being considered.

**The remaining activities required for the Upstream Development phase includes:**

Front End Engineering Design (FEED) of Upstream Development activities, including final design of production wells which will form the gasifiers, gathering networks and utilities infrastructure.

The final baseline environmental data will also need to be completed for the EIS.

### Managing Director's Commentary

Commenting on the announcement, LCK Managing Director Phil Staveley said:

*"I am pleased to be able to report that the gazettal of the Geophysical Operations SEO is a significant step forward in allowing the Leigh Creek Energy Project to commence the preparation of a subsurface model across the whole of PEL 650 which is a major milestone in the project."*

**For further information, contact:**

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### **About Leigh Creek Energy**

*Leigh Creek Energy Limited is an emerging energy company focused on developing its Leigh Creek Energy Project (LCEP), located in South Australia. The LCEP will produce pipeline quality gas and/or ammonia based fertiliser products from the remnant coal resources at Leigh Creek, utilising In Situ Gasification 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**

*We are not aware of any new information or data that materially affects the information included in the relevant market announcement dated 27 March 2019 and that all the material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.*