Wednesday, 25 November 2020: ASX ANNOUNCEMENT

Petroleum Production Licence issued

Leigh Creek Energy Limited (ASX: LCK or "the Company") today announced it has been issued with a Petroleum Production Licence (PPL) and an Associated Activities Licence (AAL) by the South Australian Government for the Leigh Creek Energy Project (LCEP)

Key Highlights

- The PPL is the final petroleum licencing approval for upstream development of the Leigh Creek Energy Project (LCEP) along **the Company's defined path to commercial urea production**
- The AAL allows access to roads and infrastructure as required for conduct of operations on the PPL
- The recently released LCEP Pre-Feasibility Study (PFS) highlighted the compelling economics for the development of a urea production plant to provide fertiliser to the domestic Australian and export markets
- In granting the PPL, the South Australian (SA) Department for Energy and Mining (the Regulator of petroleum activities in SA) acknowledges that the LCEP is likely to commence commercial syngas production within 24 months
- PPL 269 is a major step in providing certainty of tenure that will lead to the LCEP becoming the only Australian fully-integrated fertiliser project with all exploration, syngas production and processing and manufacturing of nitrogen-based fertiliser conducted on-site
- LCK remains focussed on progressing development of the LCEP and will now advance its upstream syngas production Environmental Impact Report (EIR) and Statement of Environmental Objectives (SEO)
- Domestic urea production from the LCEP will strengthen supply chain resilience for Australian farmers

LCK Managing Director, Phil Staveley commented:
"The granting of the PPL is the final step in the petroleum licencing approval process for upstream development for the Leigh Creek Energy Project (LCEP), which will be a key supplier of urea to Australia's agriculture sector. The project will be the only fully-integrated urea production facility in Australia, with an on-site power plant with up to 100MW capacity and nameplate 1 million tonne per annum urea plant, with potential to increase to 2 million tonnes per annum.

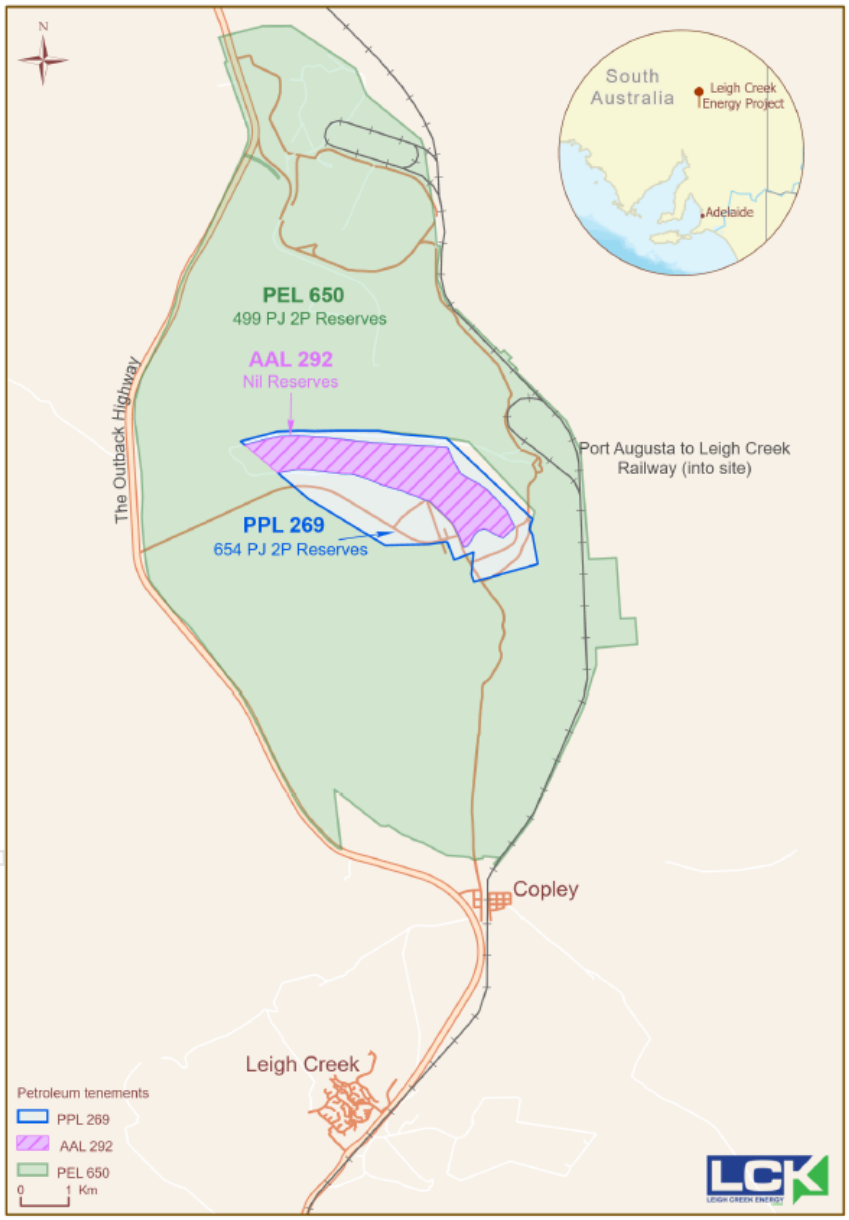
"The granting of the PPL by the South Australian Government allows us to proceed with certainty towards monetising the large gas reserves of the LCEP and providing long-term economic development opportunities to communities of the Upper Spencer Gulf, northern Flinders Ranges, South Australia and Australia.

"We recently completed the in-situ gasification (ISG) and urea production Pre-Feasibility Study and are well advanced with the upstream operation Environmental Impact Report process for the ISG project which we

expect to be carbon neutral by 2030 due to its strong environmental, social and governance profile including access to clean energy and infrastructure. These milestones all move LCK closer to becoming a significant supplier of low-cost, domestically-produced urea providing additional security to a critical product for the Australian agricultural sector."

Petroleum Production Licence

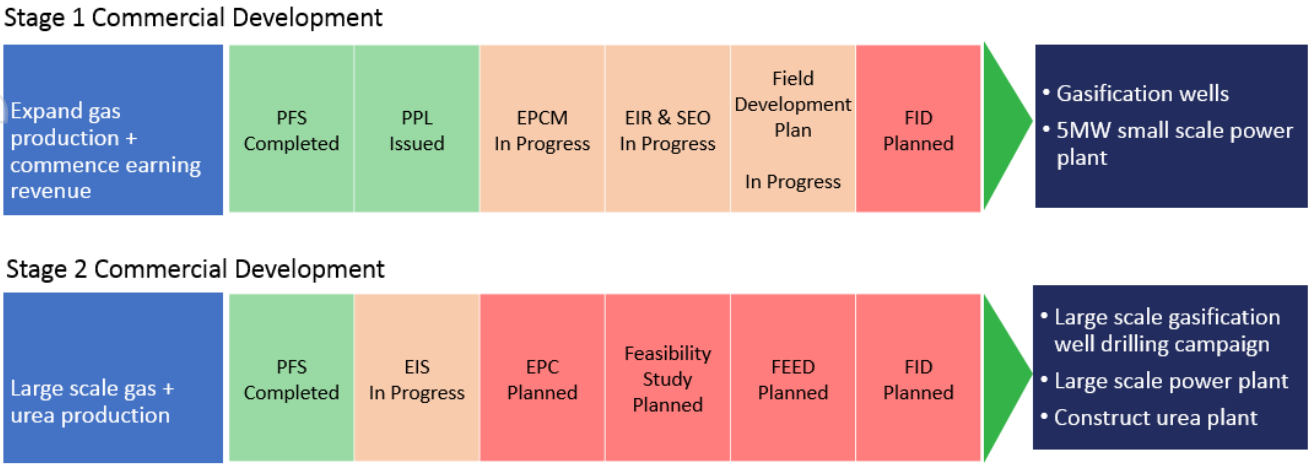
PPL 269 includes 654 PJ of the Company's 1,153 PJ 2P gas reserves, which is sufficient to supply the proposed 1Mtpa urea production facility for approximately 20 years. The balance of the 2P reserve is outside the PPL area, but within LCK's existing petroleum tenements at Leigh Creek. As the project progresses, the 2P reserve will be developed pursuant to the first stage field development plan and the remaining reserves will be subject to subsequent field development during the project's life.



Map of PEL 650, and newly issued PPL 269 and AAL 292

In issuing PPL 269 the SA Department for Energy and Mining, as Regulator of petroleum activities in SA, assessed the Company technically and against Section 35(1)(d) of the Petroleum and Geothermal Energy Act 2000, and determined that the LCEP is likely to be commercially feasible. This provides the Company with security of tenure and confirms that it is likely to begin commercial ISG production and revenue generation from the Stage 1 Commercial Development, within the next 24 months.

The PPL is the last petroleum licence approval for upstream development of the LCEP. Key upstream and downstream commercial development milestones are illustrated below.



Associated Activities Licence

As shown in the map above, AAL 292 is situated adjacent to the PPL 269 boundaries. LCK is permitted to access the AAL area to conduct operations ancillary to petroleum related activities within PPL 269, such as acquisition of 2D and 3D seismic surveys, drilling of wells, checking existing geotechnical and hydrology monitoring wells and to use roads and other existing infrastructure that support the production of petroleum products from the PPL.

Significance of the PPL to LCK

The issue of PPL 269 endorses LCK's performance over the last five years and establishes the environmental and commercial credentials of the LCEP. It also gives LCK's shareholders and its potential strategic partners confidence that LCK is on track for full-scale commercial production of syngas and nitrogen based fertiliser.

Milestones along LCK's path toward issuance of PPL 269 include:

- Petroleum Exploration Licence Application issued
- Gas Storage Licence issued
- Petroleum Exploration Licence issued
- JORC certification of 301.2Mt coal resource
- Successful construction, operation and decommissioning of the pre-commercial demonstration plant
- PRMS certification of 1,153PJ 2P gas reserve
- Petroleum Retention Licence issued
- PFS completed

Significance of the PPL to the recent Pre-Feasibility Study (PFS)

PPL 269 is the final petroleum licence required for upstream (sub-surface ISG) development along the Company's defined path towards commercial urea production, as detailed in its PFS announced on 2 November 2020.

The PFS confirmed the positive project economics for the development of a urea production facility supported by syngas feedstock. It also outlined an average nominal operating cost of $109 per tonne which compares favourably with volume weighted average global urea production cost of $268 per tonne. 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.

During construction the LCEP will be one of the most significant infrastructure projects in South Australia , and once operations commence it will directly and indirectly create hundreds of permanent jobs in the Northern Flinders Ranges region.

The Leigh Creek Energy Project

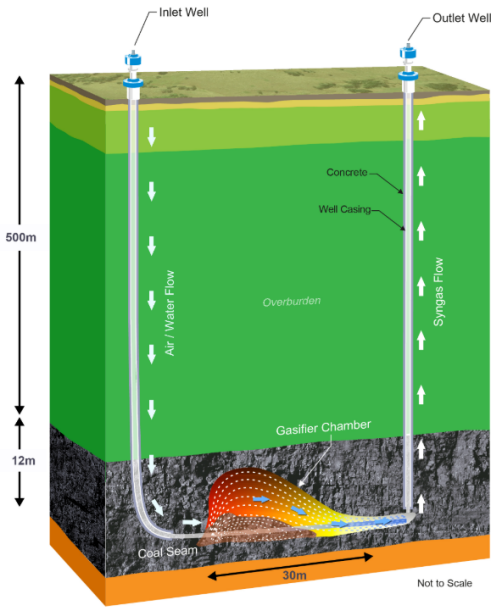
The LCEP is located at Leigh Creek, 550 kilometres north of Adelaide, South Australia. When operational, the LCEP will become the largest in-situ gasification (ISG) project in Australia and a significant supplier of low cost, domestically produced urea to Australia's agricultural sector.

The LCEP is being developed to generate unconventional gas, or synthesis gas (syngas), from deep coal seams using gasification technology. LCK has proved and probable 2P reserves of 1,153 PJ of gas from 31% of the coal at Leigh Creek.

LCK will use its syngas as feedstock for production of urea, a key fertiliser in agriculture.

Initial modelling based on studies from thyssenkrupp indicates that the LCEP can market urea into the domestic and import markets at or below import price parity from the dominant lowest quartile producers from the Gulf States.

The In-situ Gasification Process



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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.

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

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