

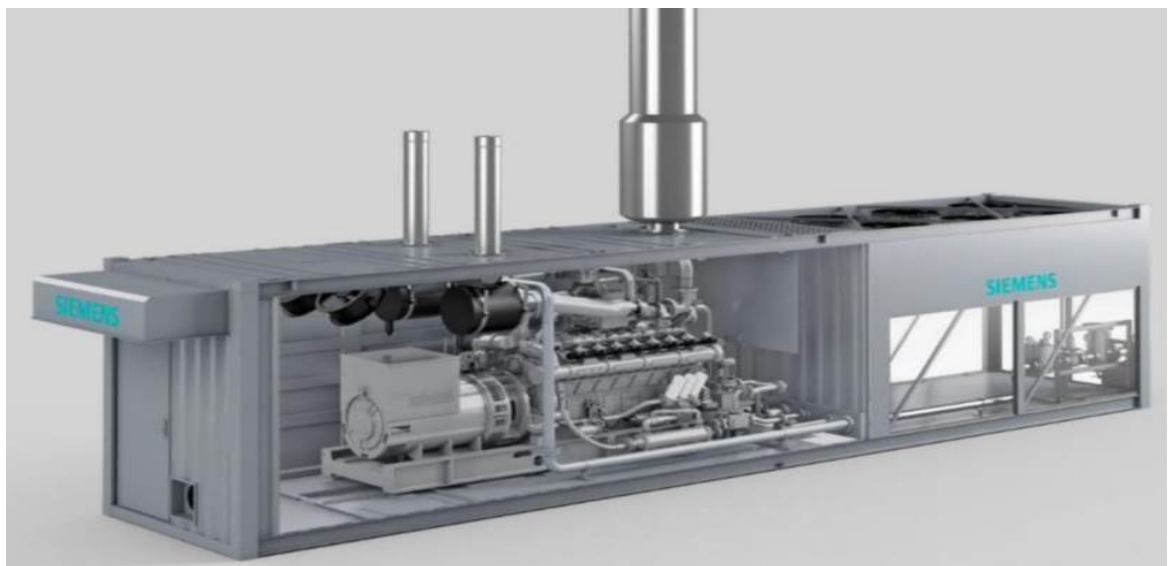
21 July 2021, ASX ANNOUNCEMENT (ASX:LCK)

Generators acquired for LCEP upstream operations

Leigh Creek Energy Limited (“LCK” or “the Company”) has acquired the generators required for the upstream (Stage 1) commercialisation of the Leigh Creek Energy Project (LCEP)

Highlights

- LCK has acquired Siemens power generators, from Drivetrain Australia to supply power for the upstream (Stage 1) commercialisation of the LCEP.
- The generators are the first long lead production infrastructure items procured and will be installed and tested on site ready to receive first syngas from production wells in 2022.
- The generators, were selected based on LCK criteria to operate efficiently on LCEP syngas according to LCK’s proven gasification technology.
- Upstream (Stage 1) of the LCEP will focus on the development of the gasifiers required for the development of the zero carbon 1mtpa urea plant at the LCEP.
- The LCEP will provide urea to the Australian and regional markets with initial studies indicating an NPV of the project of \$3.4 billion with a 30% IRR.



Siemens generator of the type purchased by LCK

LCK Managing Director Phil Staveley commented on the progress of commercialisation activities:

“After achieving the required regulatory and financial milestones, it’s rewarding to now be preparing for building major infrastructure on site for commercialisation of the \$2.6 billion Leigh Creek Energy Project. The syngas fired power generators sets are key to upstream (Stage 1) operations.

The LCEP will be the only fully integrated urea production facility in Australia, allowing us to be the lowest-cost sovereign supplier of this critical product for the agricultural sector. It will change the dynamics of the local and Asian fertiliser markets and ensure the Australian agricultural sector is provided with a key input that is cheap, secure, reliable and produced with zero carbon emissions.

We continue to ensure we meet shareholder and community expectations, working under the values of the United Nations Global Compact to ensure we meet the highest standards for safe and reliable operations throughout the construction and operational life of the project.”

Upstream (Stage 1) Commercialisation Milestones

The objective of the upstream (Stage 1) component of the LCEP is to develop the gasifiers for the urea manufacturing plant (Stage 2) requirements in an environmentally responsible manner. The scope of this stage includes:

- Acquisition and installation of the power generators
- Drilling up to five syngas-producing wells to provide syngas to power the generators
- Acquisition of additional 3D seismic information to guide planning of the gasification field for Stage 2 syngas feedstock requirements

Drivetrain Australia expects the Siemens engines to arrive from Spain in early 2022, which aligns with LCK’s plans to install them onsite and commence syngas production in 2022.

The operations work plan and 2021 milestones and workflows is below:

Quarter	September 2021	December 2021	March 2022	June 2022
Stage 1 Commercial Development	Power Generators Acquired	EIS approved	Power Plant / Infrastructure Construction	
	3D Seismic Acquired	Drilling Investigation/ Monitoring Wells		

InGauge Energy is currently finalising underground drilling design and Prudentia Process Consulting is design engineering the gas processing plant and the development of gas production systems.

The generators were selected due to Siemens track record and experience with similar Australian projects. Drivetrain Australia may also provide aftersales support and maintenance in South Australia subject to further agreement.

Once installed, the electricity generators will power site infrastructure, eliminate diesel generation, and enable commissioning of gasifiers with electrically driven compressors (in line with our commitment to zero carbon emissions) with the extra power to be commercialised to third parties.

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

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About Leigh Creek Energy

The Leigh Creek Energy Project (LCEP) 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, 550km north of Adelaide, the LCEP will initially produce 1Mtpa (with potential to increase to 2Mtpa) of urea using LCK's 1,153PJ 2P gas reserves.

The \$2.6 billion LCEP 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 LCEP 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 will be \$109/tonne - within the lowest cost quartile of the global urea production cost curve. Pre-tax leveraged Net Present Value (NPV) is A\$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 by 2030.

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

Resource Compliance Statement

The information in this announcement that relates to the 2P Syngas Reserve was detailed in an announcement lodged with ASX on 27 March 2019 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.