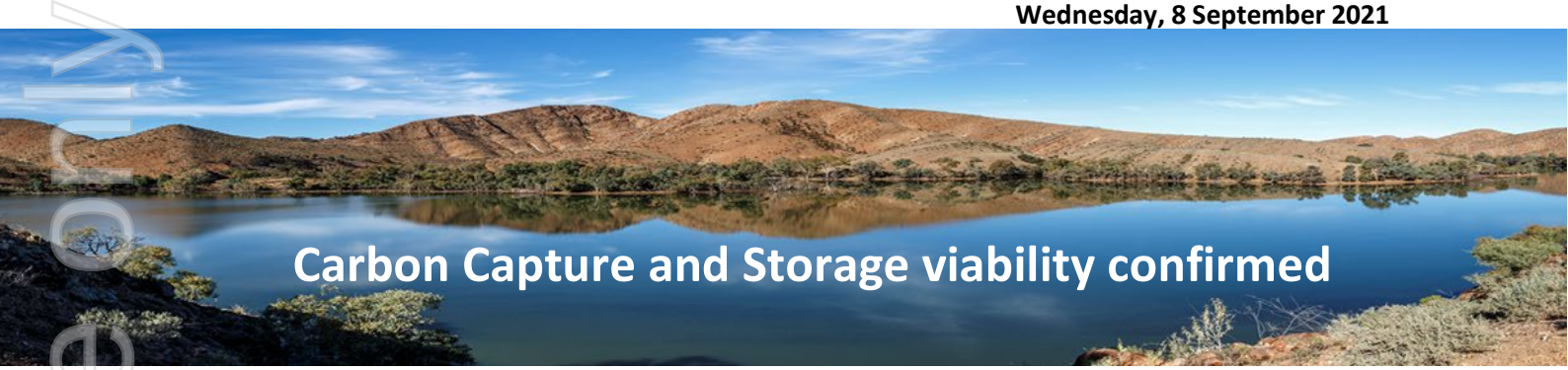
ASX ANNOUNCEMENT (ASX:LCK)

Wednesday, 8 September 2021



Carbon Capture and Storage viability confirmed

Leigh Creek Energy (LCK) achieved another milestone with the viability of its Carbon Capture and Storage (CCS) being confirmed by an independent feasibility study.

- Independent Industry expert inGauge Energy completed CCS feasibility study
- Feasibility results confirmed the critical elements for large scale retention of CO_2 possible

Leading industry engineering group inGauge recently completed an independent feasibility study into all the technical aspects of LCK's proposed CCS at the Leigh Creek Urea Project (LCUP).

The proposal by LCK is to store excess CO_2 from the production of gas and from the manufacture of urea in the void created underground by the production of gas.

The study covered both engineering and geological spheres and the study confirmed that the LCUP has all the critical elements for large scale retention of CO_2 within an underground storage that include:

- Reservoir presence and sufficient capacity
- Seal presence; Seal thickness; Seal integrity
- Injectivity
- Sufficient depth

Further, all the critical elements for successful carbon capture and storage are present or manufactured on site making the CCS proposal not only viable, but commercially feasible.

Front end engineering design of the above ground facilities is the next step in the process which will be incorporated in the design of the urea facility, scheduled for 2022.

This important step has once again demonstrated LCK's progress and commitment to ESG, through our *culture of carbon consciousness.*

LCK Managing Director Phil Staveley commented:

"The finalised CCS feasibility study is a critical milestone for our project as all the data and findings will be incorporated in the engineering which will optimise the project from the outset. Our project strategy is to future-proof our asset by leading a carbon neutral program through our ESG commitments to provide stability, certainty and pricing upside."

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

Further information:

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About the Leigh Creek Urea Project

The Leigh Creek Urea Project (LCUP) located in South Australia, 550 kilometres north of Adelaide, is Leigh Creek Energy's (ASX:LCK) flagship project, developing low-cost nitrogen-based fertiliser for local and export agriculture markets. It has previously produced syngas within all approved environmental parameters set by the regulator.

LCK has a comprehensive environment, social and governance strategy and within that a target of being carbon neutral from 2022.

The $2.6 billion LCUP will produce 1mtpa of carbon neutral urea and will be the only fully integrated urea production facility in Australia, with all inputs for low carbon urea production on-site. Forecast operating cost is 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%.

The project will provide long term economic development and employment opportunities for the communities of the Upper Spencer Gulf region, northern Flinders Ranges and South Australia.