



Tuesday, 28 November 2017
Manager Companies
Companies Announcements Office
Australian Securities Exchange Limited

Leigh Creek Energy Project Pre-Commercial Demonstration Stage Update

Highlights

- **Plant fabrication components on schedule**
- **Contracting and procurement activities approaching completion**

South Australian energy company, Leigh Creek Energy Limited (ASX: LCK) (“LCK” or “the Company”), is pleased to provide this update on the progress of fabrication of the plant and equipment required for the Pre-Commercial Demonstration (PCD) facility for the Company’s Leigh Creek Energy Project (LCEP).

The LCEP is situated on the site of the former Leigh Creek open cut coal mine, some 550km north of Adelaide in South Australia. The PCD facility will demonstrate in situ gasification at the LCEP using a low cost rapid deployment technique. This will provide environmental and gas quality data to inform regulators and determine commercial project design and feasibility study direction.

As LCK pushes towards the operation of the PCD, it is timely to provide an update on the status of various elements of the project development.

It is important to note that, while LCK pushes ahead with its project development, SA regulatory approval is required before the various on-site activities can take place. LCK is actively pursuing these approvals. Draft Environmental Impact Report and Statement of Environmental Objectives are with the State Government Regulator to assess their adequacy for compliance with the *Petroleum and Geothermal Energy Act 2000*.

Plant Fabrication Update

Above Ground Plant

Ottoway Engineering (Ottoway) is nearing completion of the fabrication of the Above Ground Plant modules in its Adelaide facilities.

Ottoway has a long history of oil and gas and other engineering fabrication in South Australia, and is one of Australia’s leading mechanical fabrication and installation contracting companies and provides specialised services to the petro-chemical, mining, defence and water industries. Ottoway has successfully completed a range of projects throughout Australia and maintains a permanent presence in the Cooper Basin servicing its long-term customers in the oil and gas industry.



Module fabrication assembly underway



Piping and valves being installed at Ottoway Engineering

Valves and Equipment

The majority of valves and equipment have been delivered to Ottoway ready for incorporation into the Above Ground Plant modules. This includes isolation valves, pressure control valves and pumps.



Manual Valves ready for installation

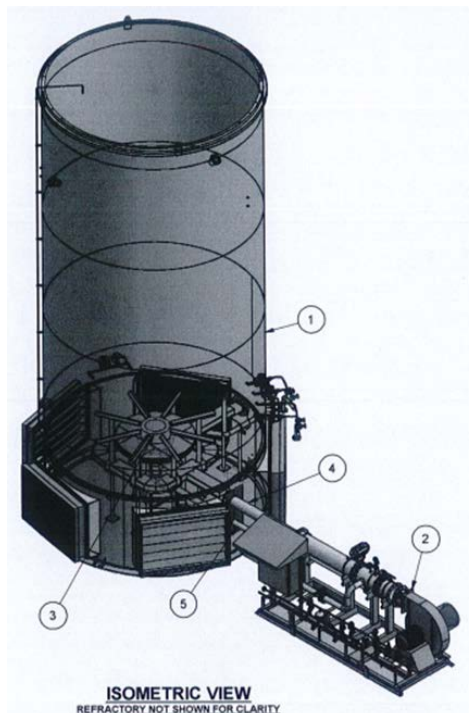


Actuated valves ready for installation

Thermal Oxidiser and Cold Vent

Gasco Pty Ltd has now completed the fabrication of the Thermal Oxidiser and Cold Vent with Factory Acceptance Testing finalized ready for delivery.

Gasco is a leading combustion and specialist engineering company in Australia.



Isometric view of Thermal Oxidiser



Thermal Oxidiser casing fabrication nearing completion

Well casing

Marubeni Itochu Tubulars Oceania (MITO) and BOMA are suppliers of Oil Country Tubular Goods (OCTG) and have been selected to provide casing for the PCD wells.

MITO's Australian branch is providing generic casing from standard stock used by most onshore oil and gas operators. BOMA is providing 'premium threaded casing' through its Perth branch via Dubai which has enhanced properties to withstand the high temperatures from the gasifier to the PCD. All casing has been ordered and is awaiting delivery to site.



Premium Thread Casing Couplings

Wellheads

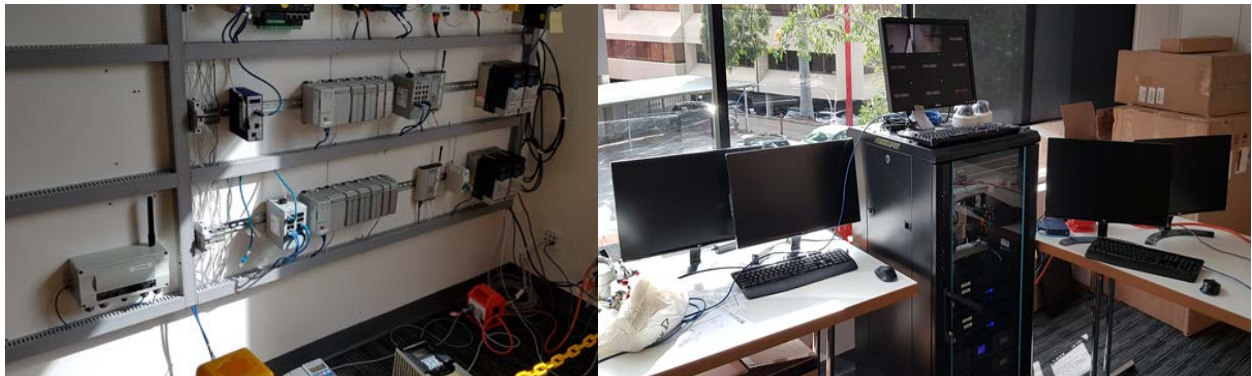
Cactus Wellhead Pty Ltd manufactures and services pressure control equipment for onshore and offshore oil and gas drilling, completion and production and is an international expert and leader in wellhead design, manufacture and installation. Its branch in Brisbane has been selected as the preferred supplier for this design and supply contract. Final design is completed and fabrication is underway.

Electrical and Control Systems

ATSys Pty Ltd has completed the electrical design of the plant in their Adelaide office with construction and Factory Acceptance Testing of the electrical panels now complete and have been delivered to Ottoway for installation. Factory Acceptance Testing is underway for the Programmable Logic Controller (PLC), Human Machine Interface (HMI) and Supervisory Control and Data Acquisition (SCADA).



Electrical Panel undergoing Factory Acceptance Testing by ATSys



PLC Control System undergoing testing by ATSys

SCADA System undergoing configuration by ATSys

ATSys is a control systems integration specialist in electrical and control systems design, programming and configuration, testing and commissioning, support and maintenance of systems. It delivers engineering solutions to various sectors including mining, oil and gas, water and wastewater, food and beverage and agribusiness.

Gas Analysis and Instrumentation packages

The ABB supplied instruments have been delivered to Ottoway ready for incorporation into the Above Ground Plant modules. This includes pressure, temperature and flow measurement instruments.

The Gas Analysis package construction and fit out is complete, with Factory Acceptance Testing complete.

ABB is a global technology leader that works closely with utility, industry, transportation and infrastructure customers.



ABB Gas Analysis Package

PCD Drilling

Silver City Drilling (SA) Pty Ltd has been awarded the contract to drill the Inlet and Outlet wells for the PCD, in addition to additional groundwater and geo-technical monitoring wells.

Silver City Drilling Pty Ltd is an independently owned Australian company located in Alice Springs (NT) with bases in Balaklava (SA), Moura, Birdsville (QLD) and Wollongong (NSW). Over the last ten years it has established a reputation in the Australian energy sector specialising in drilling and well servicing operations for both conventional and unconventional oil and gas operations. Services provided include full scope exploration, development and production well drilling, the complete range of well servicing operations (workovers, completions and directional downhole steering) together with the full suite of support activities needed for successful operations.



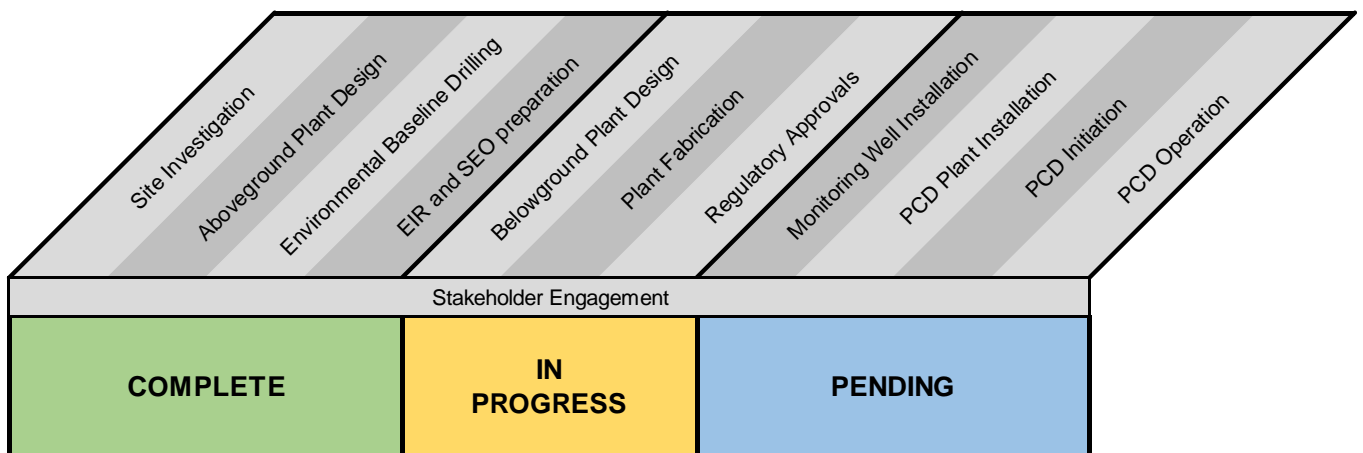
Phil Staveley, CEO of LCK with Viv Oldfield, Director of Silver City Drilling and a copy of the contract between the two South Australian based companies.

Other items:

- **Diesel Supply** – Petro Diamond Australia have been selected to deliver diesel from their Port Bonython facility.
- **Diesel Storage** – Westanks Australia Pty Ltd have been selected to provide the 55kl and 110kl diesel tanks.
- **Air Compression** - Finalising selection of supplier.
- **Well Site Services** - The main service areas of well site services have been awarded to Superior Energy Services (Australia) Pty Ltd for Cementing Supply and Services, Halliburton Australia Pty Ltd for Directional Drilling Services and Kinetic Logging Services Pty Ltd for Wireline Services.
- **Earthworks** – Bardrill Corporation Ltd have been selected to prepare the site for operations.

Summary

With the funding for the construction of the PCD secured and approval documents substantially completed, the driving focus of the LCK Operations team is towards making of demonstration gas in the first quarter of 2018. The LCEP is accelerating rapidly. Current and expected progress is represented in the following graphic:



Commenting on this progress, LCK Chief Executive Officer, Phil Staveley said:

“The LCK Operations Team have quickly mobilised the contractors required for the PCD Fabrication team. We are pleased that these contractors were able to respond quickly once contracts were awarded, and their ability to make rapid progress has supported LCK’s efforts to accelerate PCD construction activities.”

Leigh Creek Energy – bringing reliable energy to South Australia.

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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 high value products such as methane, electricity and potentially fertiliser and industrial explosives from the remnant underground 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.

Leigh Creek Energy acknowledges and respects the Adnyamathanha people, the Traditional Owners of the land on which its operations occur and pay our respects to their Elders past and present.