



8 January 2016

Manager Companies
Companies Announcements Office
Australian Stock Exchange Limited

LEIGH CREEK ENERGY LIMITED

ASX ANNOUNCEMENT

Initial PRMS ISG Gas Resources Certification

Gas Sales discussions progressing

Independent PRMS Assessment of 2,963.9 PJ 2C ISG Gas Resource

Leigh Creek Energy (**LCK**) is pleased to announce a major milestone in the achievement of a 2C SPE-PRMS ISG gas resource of 2,963.9 PJ at its flagship Leigh Creek Energy Project (**LCEP**) reported in accordance with the Society of Petroleum Engineers - Petroleum Resources Management System (**PRMS**). PRMS is the internationally recognized standard for reporting oil and gas resources and reserves.

The gas resource was independently assessed by MHA Petroleum Consultants LLC (**MHA**) of Denver USA, who certified the following resources (MHA's certification report is appended for information):

1C	2,747.7 PJ
2C	2,963.9 PJ
3C	3,303.1 PJ

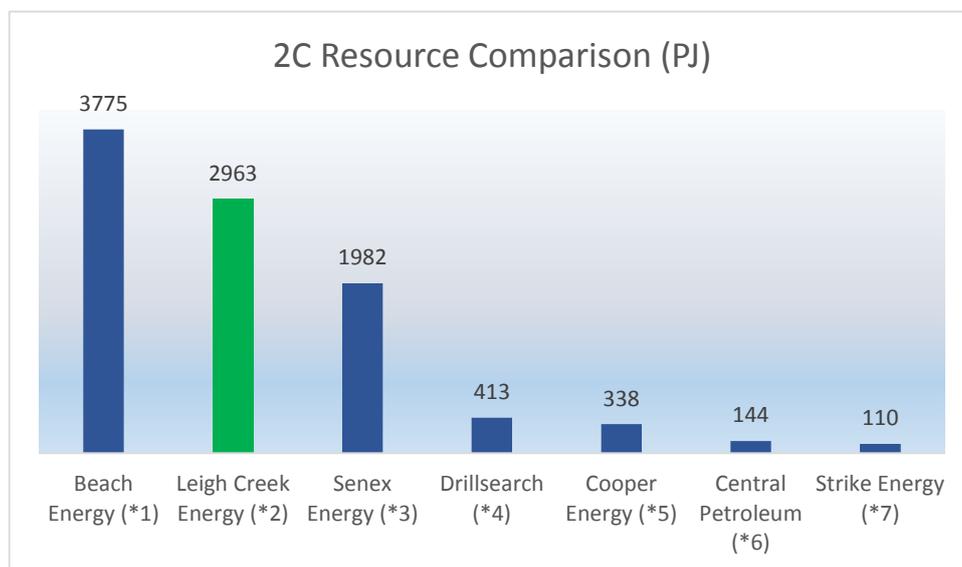
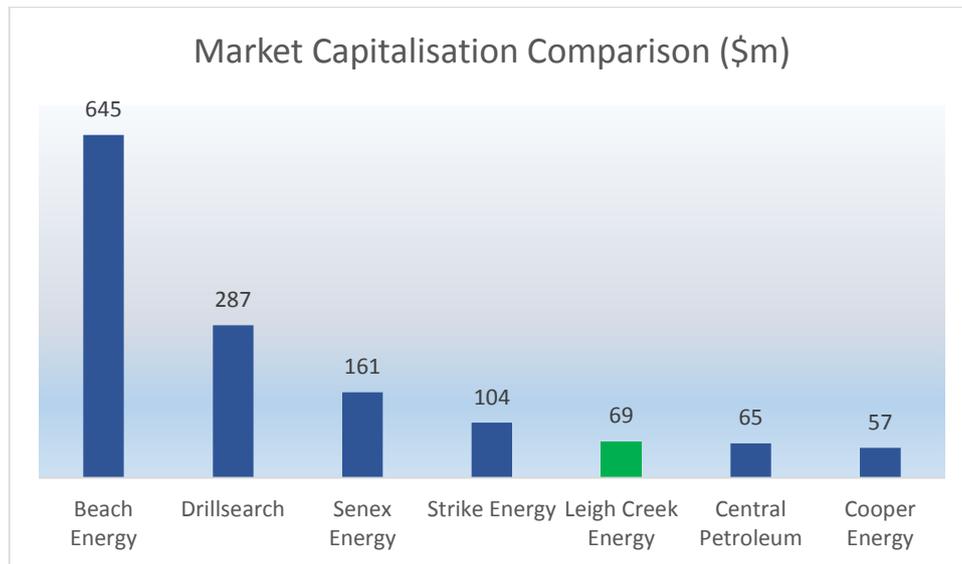
All numbers quoted represent MHA's opinion of gas energy recoverable at the LCEP.

Gas Resources

The achievement of a PRMS of this size is significant for a company with our current market capitalization (\$69m at \$0:30 per share), particularly in the context of the demand in the Eastern Australian Gas Market. The tables below show the market capitalisation of certain Australian Energy Stocks (at close of business on 7 January 2016) and the current 2C resource comparison with these stocks:

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The magnitude of the resource at LCEP may not yet be recognised in the share price.

*1 Refer to ASX: BPT announcement on 23/10/15

*2 PJ refers to ISG Gas Resource Certification attached

*3 Refer to ASX: SXY announcement on 25/8/15 (Combined oil, gas and condensate resources)

*4 Refer to ASX: DLS announcement on 26/8/15 (Combined wet gas and unconventional gas resources)

*5 Refer to ASX: COE announcement on 9/10/15 (Combined oil and gas resources)

*6 Refer to ASX: CTP announcement on 23/9/15

*7 Refer to ASX: STX announcement on 21/9/15

Gas Marketing

As we previously informed the market, LCK commenced discussions with several potential gas buyers in 2015.

LCK continues to actively work towards selling gas in the ground with upfront payments from potential buyers. We are pleased to be able to report that we are currently in discussions with companies who wish to purchase gas.

Now that the SPE-PRMS resource is completed, we expect to rapidly progress negotiations with potential customers. Previously, it has been difficult to progress negotiations towards the final stage without an independently certified PRMS resource.

Path Forward

The LCEP is nearing completion of the first phase of the project with the recent Inferred JORC (2012 compliant) resource (refer ASX release 8/12/15), commencement of environmental baseline studies and now MHA's ISG Gas Resource certification.

In the March quarter of 2016 LCK will commence phase two of the LCEP which will work towards demonstration and flaring gas in December quarter 2016.

Chairman's Comments

"This PRMS gas resource announcement is an exciting, and important milestone in the development of the Leigh Creek Energy Project and underpins our original assumption that the LCEP contained significant quantities of recoverable gas from which we intend to produce commercial quantities of gas.

We are pleased with the progress of gas sales discussions and intend to deliver binding gas supply contract in the June half 2016.

Independent gas resource certification helps accelerate the LCEP development timetable as it provides added confidence to domestic and international buyers of gas, investors in LCK and future debt providers.

I look forward to updating stakeholders with the outcomes of these negotiations with additional news."

For further information contact:

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Media

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The Resource estimates stated herein are based on, and fairly represent, information and supporting documentation prepared by Timothy Hower of MHA Petroleum Consulting, Denver USA. Mr. Hower is a member of the Society of Petroleum Engineers and has consented to the use of the Resource estimates and supporting information contained herein in the form and context in which it appears. A copy of the report prepared by Mr. Hower is attached to this announcement.

About Leigh Creek Energy

Leigh Creek Energy Limited (LCK) is an emerging gas company focused on developing its Leigh Creek Energy Project (LCEP), located in South Australia. The LCEP will produce high value products such as methane and fertiliser from the remnant coal resources at Leigh Creek utilising In Situ Gasification technologies, and will provide long term growth and opportunities to the communities of the 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 to as low as can be reasonably achieved.

8th January 2016

The Board
Leigh Creek Energy Limited
PO Box 12
Rundle Mall
Adelaide, South Australia 5000



**Re: Initial PRMS ISG Gas Resources Certification
PEL 650; Leigh Creek Energy Project**

Dear Tom:

At the request of Leigh Creek Energy ("LCK"), MHA Petroleum Consultants LLC ("MHA") have prepared an initial estimate of the gas resources associated with In-Situ Gasification ("ISG") of the coal volumes located in PEL 650, the Leigh Creek Energy Project ("LCEP"). The estimates of Contingent Resources in this report have been prepared in accordance with the definitions and guidelines set forth in the 2007 Petroleum Resources Management System ("PRMS"), as well as the 2011 Guidelines for Application of the PRMS, approved by the Society of Petroleum Engineers. It is the opinion of MHA that there are no Reserves currently associated with the LCEP.

Based on our evaluation, MHA estimates the gas resources associated with the LCEP and attributable to the gross (100% ownership) interest in the property, effective 8th January 2016, to be:

Area	Category	Estimated Recoverable Energy (PJ)
PEL 650; LCEP	1P Reserves	0.0
PEL 650; LCEP	2P Reserves	0.0
PEL 650; LCEP	3P Reserves	0.0
PEL 650; LCEP	1C Contingent Resources	2,747.7
PEL 650; LCEP	2C Contingent Resources	2,963.9
PEL 650; LCEP	3C Contingent Resources	3,303.1

Notes to the above table:

- 1P Reserves = Proved
- 2P Reserves = Proved + Probable
- 3P Reserves = Proved + Probable + Possible
- 1C Contingent Resources = Low Estimate
- 2C Contingent Resources = Best Estimate
- 3C Contingent Resources = High Estimate

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The LCEP is located 240km north-northeast of the township of Port Augusta in South Australia within PEL 650. Petroleum Exploration License 650 covers 93.4km². The holder of the license is ARP TriEnergy Pty Ltd, which is 100% owned by LCK. The license expiry is 17 November 2019. LCK has the rights to a Petroleum Production License under which ISG extraction is entitled.

Conventional open cut coal mining of the project area by Alinta Energy concluded in November 2015. A mine data set was provided by Alinta Energy to LCK for the project area. The data comprised information for 6137 drillholes, 65 drillholes with Log ASCII Standard ("LAS") files, 211 drillholes with hardcopy wireline geophysics, 7 drillholes with coal quality analysis, 4 2D seismic lines, as well as a mine survey. Additional information on the project area was sourced from GSA Coal Geology publications and conference proceedings.

MHA was provided with a Geological and Modelling Report prepared in December 2015 by GeoConsult Pty Ltd. This report included an estimate of the Inferred Coal Resource associated with the project area and reported in accordance with the JORC code, 2012 edition. The GeoConsult geological model was based upon 1432 drillholes in the upper series coal seams, and 3385 drillholes in the main and lower series coal seams. Re-interpretation of the available seismic data was completed to provide top of coal, fault control and supported coal seam continuity across the project area. MHA conducted a detailed review of the GeoConsult coal resource estimate, and these coal volumes were used in the MHA gas resource estimate.

MHA was also provided with a report documenting the Process Modelling of ISG for LCEP Coal. The report was prepared in December 2015 by HRL Technology ("HRL"). The work scope of the HRL investigation focused on the determination of the gas composition and energy value produced from ISG of coal at the LCEP. Multiple coal samples were provided by LCK to HRL for their investigation. MHA conducted a detailed review of the HRL report. The energy values estimated in the report were used by MHA in our gas resource estimate.

The Contingent Resources estimated by MHA utilized a deterministic estimation method. It is the opinion of MHA that there are no Reserves associated with the project at the current time. The key contingency which is currently preventing the Contingent Resources from being classified as Reserves is the lack of a field ISG pilot. It is the understanding of MHA that a field ISG pilot at the LCEP is planned for the near future. Once field pilot testing has been conducted at LCEP, and those data have been reviewed, then it may be appropriate to update the estimates presented in this evaluation to include Reserves. The conversion of coal to synthetic gas, also known as "syngas", is a commercially viable technology that has been successfully applied in analogous coal deposits elsewhere in the world.

The Contingent Resources estimated by MHA were based upon the following approach and calculation methodology:

- A minimum coal seam thickness of 2m was required
- A maximum stone parting thickness of 1m was imposed
- ISG Resources were limited to a minimum overburden thickness of 200m
- Points of observation spacing of 4km (1km past the last point) were used in the estimation of coal in place where the geological correlation supported lateral continuity
- A fixed relative coal density of 1.4 g/cc was applied for the estimate
- The energy yield of the coal was estimated to be 15.2 GJ/tonne



- A process recovery efficiency, which quantifies the percent of coal in place that is gasified during the ISG process, was estimated at 80%
- A geologic risk factor ranging from 40% to 80% was also applied to the estimate

This resource evaluation was prepared under my direct control and supervision in accordance with the Society of Petroleum Engineers PRMS guidelines. I am the Chief Executive Officer, and a full-time employee, of MHA. I am a Licensed Professional Engineer in the State of Colorado, USA, and an active member of the Society of Petroleum Engineers. I am a qualified petroleum reserves and resources evaluator as defined under the ASX Listing Rule 5.42.

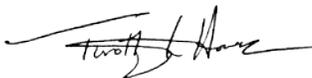
MHA is a leading independent petroleum engineering and certification firm based in Denver, Colorado which has experience working in most of the significant petroleum provinces throughout the world. MHA has completed reserve and resource assessments for a number of clients in Australia and internationally including Adelaide Energy, Arrow Energy, Bow Energy, ConocoPhillips, CS Energy, Eastern Star Gas, Metgasco Ltd, Molopo Energy Australia, Pure Energy, Santos Ltd, Senex, Sunbird Energy and Sunshine Gas.

MHA did not perform any field inspection of the properties. MHA did not investigate any possible environmental liabilities related to the properties or the project area.

Neither MHA, nor any of our employees, have any interest in the subject property and neither the employment to do this work, nor the compensation, is contingent on our estimates of reserves and resources for the properties in this report.

It has been a pleasure to prepare this evaluation for Leigh Creek Energy. If you have any questions regarding this evaluation, or if additional information is needed, please feel free to contact me.

Sincerely,



Timothy L. Hower
Chief Executive Officer