

#### **12 October 2016**

# **Tlou Energy Limited**

("Tlou" or "the Company")

# Tlou achieves initial independent gas reserve certification

- Lesedi CBM Project achieves initial independent gas reserve certification
- First certified gas reserves in Botswana
- Independent reserve certifier has indicated Lesedi CBM Project is capable of economic development

Tlou Energy Limited, the AIM and ASX listed company focused on delivering power in Botswana and southern Africa through the development of coal bed methane ("CBM") is pleased to announce that it has received an initial Independent Reserve Certification from SRK Consulting (Australasia) Pty Ltd ("SRK") for the Lesedi CBM Project ("Lesedi") located in prospecting licence PL002/2004 in Botswana.

Commenting on the announcement, Executive Director Gabaake Gabaake said "I am absolutely delighted with this news; it is a very significant achievement for Tlou. Initial reserve certification is a major milestone and demonstrates the commerciality of the Lesedi CBM Project. As the first in Botswana to attain independently certified CBM reserves we are in a very strong position to progress the project further for the benefit of our shareholders and to bring a much needed and clean source of power to the people of Botswana.

"Our plan is to now continue to build reserves and upgrade the category of these reserves as further production data from Lesedi is collected. The initial reserves assessment is based on the production data obtained to date from the three pilot production wells in the Selemo Pilot and extrapolating this production data over a potential field development at Selemo to support a 50MW power generation project.

"It is also pleasing to note that SRK has indicated in their independent reserves report that the produced gas from the Selemo Pilot is capable of supporting an economic development for the Lesedi Project.

"It has been a very important and successful period for the Company over the past few months, with funding secured through the recent placement, our Environmental Impact Statement approved and



now independently certified reserves booked. These are significant steps in our aim to become a mid-tier gas to power producer in southern Africa and I look forward to updating the market further as we build upon this success."

In accordance with the Society of Petroleum Engineers ("SPE") 2007 Petroleum Resource Management System ("PRMS") Guidelines as well as the 2011 Guidelines for Application of the PRMS approved by the SPE, SRK have attributed Gas Reserves to Tlou's 100% interest in Lesedi using the deterministic method of petroleum reserves estimation as at 26 September 2016 as set out in Table 1 below (in billion cubic feet (BCF)).

Table 1: Lesedi Independent Gas Reserves Certification (Lower Morupule seam only) and Contingent Gas Resources Certification (all coal seams) - BCF

Tlou Interest (100%)	Gas	Reserves (B	CF) <sup>1</sup>	Contingent Gas Resources (BCF) <sup>2</sup>			
Category	1P	2P	3P	1C	2C	3C	
26 September 2016	0.1	2.7	52.9	4.8	236	3,243	
certification by SRK							
31 March 2015	-	-	-	4.9	239	3,296	
certification by SRK							
Increase/(decrease)	0.1	2.7	52.9	(0.1)	(3)	(53)	

The change in Contingent Gas Resources is due to their partial conversion to Reserves and pilot gas production. SRK have also reported the Gas Reserves in Petajoules (PJ), as shown in Table 2 below.

Table 2: Lesedi Independent Gas Reserves Certification (Lower Morupule seam only) - BCF and PJ

Tlou Interest (100%)	Gas Reserves (BCF) 1			Gas Reserves (PJ) 1,3			
Category	1P <sup>2</sup>	2P	3P	1P	2P	3P	
26 September 2016	0.1	2.7	52.9	0.1	2.1	42.2	
certification by SRK							

#### Notes to Tables 1 and 2 above:

Gas Reserve numbers have been rounded to the nearest tenth. Gas Resource numbers have been rounded to the nearest tenth for amounts less than 100 BCF, otherwise to the nearest whole number. Refer to Competent Persons Statement in Appendix 2 of this Announcement.

- 1) Tlou's Gas Reserves have not been adjusted for fuel or shrinkage and have been calculated at the wellhead (which is the reference point for the purposes of Listing Rule 5.26.5) for the Lower Morupule seam only.
- 2) Contingent Gas Resources are (100%) Unrisked Gross and are derived from the SRK certification at 31 March 2015 for all coal seams (as previously announced by Tlou on 9 April 2015) with adjustment by Tlou for the gas volumes which have now been certified by SRK in the Gas Reserves category for the Lower Morupule seam.



3) The energy content of the gas was determined by SRK as 0.8 PJ per BCF for the Lower Morupule coal seam based on corehole gas composition in the Selemo pilot area.

SRK has consented to the information in this announcement being released.

Additional information in relation to the Gas Reserve estimates for PL002/2004 (Lesedi CBM Project), which is the subject of this announcement, and required to be disclosed pursuant to Chapter 5 of the ASX Listing Rules, is set out in Appendix 1 of this announcement.

The Lesedi Reserves Statement received from SRK represents an initial independent certification that is based on geological, drilling and production data obtained from Lesedi to date and relates only to the Lower Morupule coal seam.

The assessment of Proven (1P) Reserves was provided in the area of the Selemo Pilot only, whereas the assessment of Probable and Possible (2P and 3P) Reserves relates to a wider area identified by SRK as the Lower Morupule Gas Fairway which is proposed to be developed by Tlou to support the development of a 50MW power generation project.

An updated Gas Reserve and Resource statement for all of Tlou's tenements is shown in Table 3 below, in accordance with ASX Listing Rule 5.25.3.

Table 3: Tlou Net Gas Reserves and Resources for all tenements and seams - BCF

Tlou 100% interest									
Location	Project	Tlou Interest	Gas Reserves (BCF) <sup>1</sup>		Gas Contingent Resource (BCF) <sup>2</sup>			Gas Prospective	
			1P	2P	3P	1C	2C	3C	Resource (BCF) <sup>3</sup>
Karoo Basin Botswana	Lesedi CBM (Lower Morupule coal) (PL002/2004)	100%	0.1	2.7	52.9	4.8	68.2	530	-
Karoo Basin Botswana	Lesedi CBM (all coal seams) (PL001/2004, PL002/2004)	100%	0.1	2.7	52.9	4.8	236	3,243	-
Karoo Basin Botswana	PL003/2004, PL035/2000, PL037/2000	100%	-	-	-	-	-	-	8,596 <sup>5</sup>



#### Notes to Table 3 above:

Gas Reserve numbers have been rounded to the nearest tenth. Gas Resource numbers have been rounded to the nearest tenth for amounts less than 100 BCF, otherwise to the nearest whole number. Refer to Competent Persons Statement in Appendix 2 of this Announcement.

- 1) Tlou's Gas Reserves have not been adjusted for fuel or shrinkage and have been calculated at the wellhead (which is the reference point for the purposes of Listing Rule 5.26.5).
- 2) Contingent Gas Resources are (100%) Unrisked Gross and are derived from the SRK certification at 31 March 2015 for all coal seams (as previously announced by Tlou on 9 April 2015) with adjustment for the gas volumes which have now been certified by SRK in the Gas Reserves category.
- 3) ASX Listing Rule 5.28.2 Statement relating to Prospective Resources:

The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

- 4) The Gas Reserves and Contingent Gas Resources for all coal seams in PL001/2004 and PL002/2004 shown in the second row of Table 3 includes the numbers for the Lower Morupule coal seam which are shown in the first row of Table 3.
- 5) Prospective Gas Resources are (100%) Unrisked Gross and are derived from a report to Tlou from Netherland, Sewell and Associates Inc (NSAI) dated 16th February 2012 regarding certification for all coal seams located in the remaining prospecting licences (as previously announced by Tlou in its prospectus dated 20 February 2013).

#### **Overview of SRK**

SRK is an independent, international group providing specialised consultancy services, with expertise in petroleum studies and petroleum related projects. In Australia SRK have offices in Brisbane, Melbourne, Newcastle, Perth and Sydney. SRK has completed reserves and resource assessments for a number of clients in Australia.

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#### APPENDIX 1 - ADDITIONAL INFORMATION REQUIRED UNDER CHAPTER 5 OF THE LISTING RULES

#### Description of Land Area, Tenure and Economic Interest LR 5.25.5, 5.31.3 & 5.31.7

Tlou has a 100% interest in and operates ten prospective coalbed methane (CBM) licences in Botswana. The licence PL002/2004 forms part of the Lesedi Project area. PL002/2004 is located in the Karoo-Kalahari Basin, Botswana, which contains a significant proportion of Southern Africa's coal deposits. The most recent work in PL002/2004 has consisted of horizontal pilot well drilling in an area known as the Selemo pilot area.

PL002/2004 was most recently renewed for a further 2-year term on 1 April 2015. The next renewal date for the permit is due 31 March 2017 unless the licence area is converted to a Mining Lease (ML) prior to this date.

The Gas Reserves reported in this announcement have been calculated net of a Government royalty of 3% of wellhead revenue and a royalty payable to the previous owner Sekaname Pty Ltd of ZAR2.00 per 1,000 standard cubic feet (SCF) produced at the wellhead or 12.5% of the wellhead selling price of the gas produced (less certain transport and logistical costs), whichever is greater.

#### Overview of Operatorship of Production LR 5.31.2

Tlou has operated all assets on PL002/2004 since 2009.

#### Lesedi Gas Project LR 5.31.4 and Previous Lesedi Gas Project Contingent Resource Upgrade LR 5.34

A large range of technical data has been obtained over the wider Lesedi project area, particularly in the PL002/2004 Block, in order to understand the commercial nature of this resource. Core laboratory analysis, with wireline log analysis has been undertaken with a range of both short and long term flow testing methods which include drill stem tests (DST), wireline conveyed flow testing tools (MDT) and wells, completed with progressive cavity pumps, put on long term pilot testing to achieve both water and gas flow rate measurements while a reservoir pressure drop around the general area of the pilot wells is being achieved.

The reserves certification report has been prepared by SRK utilising a deterministic estimation method. New technical data from the Selemo pilot program secured since the Contingent Resources upgrade by SRK in March 2015 has resulted in the initial Gas Reserves (refer Table 1) certified by SRK for the Lesedi CBM Project.

Due to the large amount of technical data, the performance of the initial Selemo pilot program, and the relatively close proximity of Lesedi to the Botswanan electricity network, SRK is of the opinion that 1P, 2P and 3P Reserves volumes are justified and warranted.

#### Estimated Quantities (in aggregate) to be recovered LR 5.31.5

The existing wells and facilities at PL001/2004 and PL002/2004 are designed for evaluation purposes only (and include flaring of gas) and are not sufficient to allow for the recovery of any significant or commercial amount of reported petroleum reserves. Only through the completion of the field development is it expected that reported 2P and 3P reserves will be recovered.



#### Statement in relation to Undeveloped Petroleum Reserves LR 5.31.6

The Lesedi CBM Project continues in the appraisal phase with three working pilots in the Selemo area situated in the southern part of the block. It is likely that further wells will be required to continue to obtain data on coal parameters, in particular in the northern and more eastern parts of the block, before a development decision can be made. Therefore at this point, it is not possible to detail when development is anticipated. It is likely that further conversion of Contingent Resources to 2P and 3P Reserves, and migration of 3P Reserves to 2P Reserves will be required before a development decision will be finalised.

The Lesedi reserves and resource volumes presented in this report reflect an update to the prior resource estimates released by Tlou in April 2015. The resources estimated in that April 2015 report were 4.9 BCF 1C contingent resources, 239.1 BCF 2C contingent resources, and 3,295.5 BCF 3C contingent resources. These contingent resources figures represent the contingent resources potentially recoverable from the combined Serowe, Morupule and Kamotaka coal formations. The addition of 1P, 2P and 3P Reserves in this announcement were justified based on new pilot production data collected and measured since the April 2015 Resources estimate and relate to the Lower Morupule Coal Formation only.

In November 2015 Botswana's Government Ministry of Minerals, Energy and Water Resources issued a request to submit technical information for the supply of emergency power to address the country's chronic power deficiency and to assist fast tracking the development of the gas industry in the country. The initial proposal submitted by Tlou Energy was for a 10MW gas-to-power pilot project. As announced on the ASX and AIM markets on 5 July 2016, Tlou received confirmation from the Botswana Public Procurement and Asset Disposal Board ('PPADB") that it had been selected to tender for and develop a CBM power plant of up to 50MW at the Lesedi CBM Project. The application process involved approval by Botswana's Government Cabinet, following which it was reviewed by the PPADB. The next step is for the Company to finalise work on a detailed proposal for the supply of CBM power in modular stages, including negotiations with various third parties on the terms of an off-take agreement, network access and project funding.

The Lesedi CBM Project currently has no gas transportation infrastructure in place. Third party infrastructure (owned by the Botswana Government) exists approximately 70km to the east of the Lesedi Project (see Appendix 3 below). Depending on the scale of any Lesedi development, this infrastructure may not be sufficient, for Lesedi, and additional infrastructure may be required and would be considered under any Lesedi development plan.

As announced by Tlou on the ASX and AIM markets on 29 September 2016, Botswana's Department of Environmental Affairs ("DEA") has approved the Environmental Impact Statement ("EIS") submitted by the Company in December 2015 for its Lesedi CBM Project. The DEA considers that the EIS adequately addressed the relevant impacts associated with the proposed development at the Lesedi Project.



#### Material Economic Assumptions LR 5.31.1

The material economic assumptions used by SRK to calculate the estimates of Gas Reserves for the Lesedi CBM Project referred to in this announcement are as follows:

- Production data derived from the currently producing Selemo Wells (Selemo 1P, 1AR, 4P);
- The initial development plan for the proposed 50MW power generation project;
- A number of wells drilled by Tlou within the area increasing the confidence in the continuity and consistency of net coal within the area;
- Development well spacing is assumed to be 150 metres;
- Capital expenditure per well has been derived from the most recent drilling and completion campaign of the Selemo area with some savings assumed for a larger, longer term production drilling campaign and estimates for downstream capital such as power plants and transmission lines;
- Economic considerations in confirming commerciality of the relevant reserves include deducting from estimated revenues the estimated operating costs, royalties and taxes, and future capital expenditure investment; and
- Net gas pricing assumptions used to estimate Tlou's share of future revenues have been derived from the current and longer term energy pricing market in the region.



# APPENDIX 2 - COMPETENT PERSON STATEMENT AND ASX LISTING RULES CHAPTER 5 - REPORTING ON OIL AND GAS ACTIVITIES

The estimate of Reserves and Contingent Resources for PL002/2004, as part of the Lesedi CBM Project provided in this announcement, (refer certification in Table 1 and Table 2) is based on, and fairly represents, information and supporting documentation determined by Dr Bruce Alan McConachie of SRK Consultants (Australasia) Pty Ltd in accordance with Petroleum Resource Management System guidelines. Dr McConachie is a full-time employee of SRK, and is a qualified person as defined under the ASX Listing Rule 5.42. Dr McConachie is a member of the American Association of Petroleum Geologists, as well as being a member of The Society of Petroleum Engineers. Dr McConachie has consented to the publication of the Reserve and Contingent Resource estimates for Lesedi in the form and context in which they appear in this announcement.

The contingent gas resource estimates for PL001/2004, PL002/2004, PL003/2004, PL035/2000 and PL037/2000 provided in this statement were originally released to the Market in the Company's announcement of 9 April 2015, and were estimated using the deterministic method with the estimate of contingent resources for PL001/2004 and PL002/2004 not having been adjusted for commercial risk.

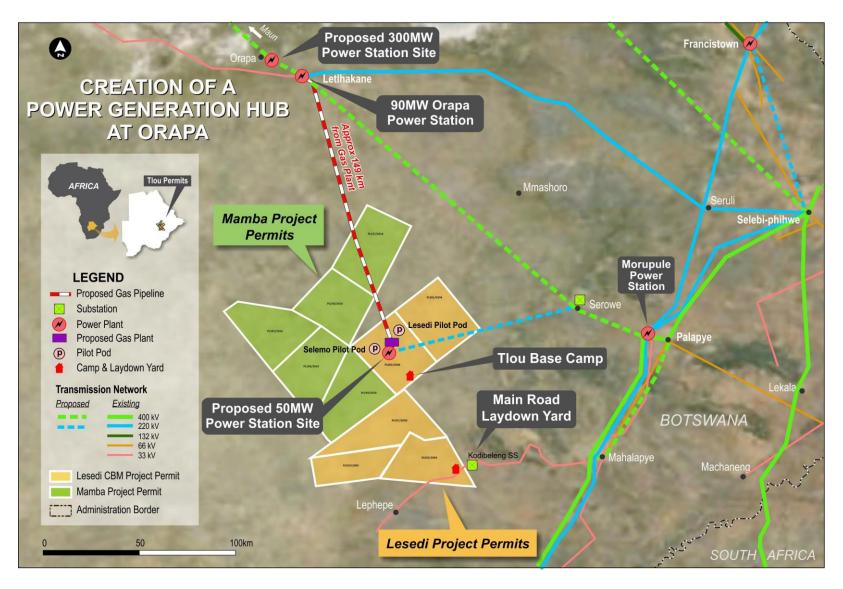
Tlou confirms that it is not aware of any new information or data that materially affects the information included in the two announcements referred to above and that all of the material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.

ASX ANNOUNCEMENT ASX:TOU

# **TLOU ENERGY LIMITED**



#### APPENDIX 3 – LESEDI CBM PROJECT PERMITS AND SURROUNDING POWER INFRASTRUCTURE





#### **Company Information**

Tlou Energy is an AIM and ASX listed company focused on delivering power in Botswana through the development of coal bed methane ('CBM') projects. Botswana has a severe energy shortage and is currently relying on expensive imported power and diesel generation to deliver its requirements. However, as the 100% owners of the most advanced gas project in the country, the Lesedi CBM Project ('Lesedi'), Tlou Energy provides investors with access to a compelling immediate and longer term opportunity using domestic gas to produce power and displace the expensive diesel and import market.

The Company is led by an experienced Board, management and advisory team including individuals with successful track records in the Australian CBM industry.

Since establishment in 2009 the Company has significantly de-risked the project in consideration of its goal to become a significant gas to power producer. The Company has the most advanced CBM project in Botswana with gas flaring at its Selemo wells. It holds 10 prospecting licences covering an area of ~8,300Km² and the Lesedi project already benefits from significant, independently certified contingent gas resources of ~3.3 trillion cubic feet (TCF) (3C) as well as an initial independent gas reserve certification.

The first planned gas-to-power solution is expected to be delivered through a scalable project with the Botswana Government. Following successful implementation of this project the Company plans larger projects to provide further power to Botswana and the southern African region.