

31 January 2017

## QUARTERLY ACTIVITIES REPORT

To 31<sup>st</sup> December 2016

**Blue Energy Limited (ASX: "BUL")** is pleased to report on activities during the December 2016 quarter across the proven and emerging basins in Queensland and the Northern Territory in which the Company's key gas and oil projects are located.

### Key Points

- **East Coast Gas shortage – Bowen Basin is the solution – Blue has reserves**
- **Domestic gas prices increasing**
- **Gas commercialisation discussions continue**
- **Bowen Basin pipeline link to south is critical for East Coast Australia**
- **NT gas moratorium – industry expenditure deferred**

### **East Coast Gas Shortage**

Recent media commentary suggests that the East Coast gas supply shortage is now becoming more widely understood.

The Bowen Basin is a gas producing province with large reserves and resources. The Bowen Basin is the short term solution to the gas shortage, as it already contains significant discovered reserves (1P, 2P & 3P) and up to 10,000 PJ of recoverable gas resource (3C). It does however require a critical piece of pipeline infrastructure to be installed to deliver these reserves to the southern market.

Gas production from the basin into the Moranbah and Townsville markets commenced in 2005 and since that time the province has produced approximately 160 PJ of gas and at production rates as high as 40 Tj/day.

Blue Energy currently has approximately 3,000 PJ of gas resource (estimated independently by Netherland Sewell and Associates) in the Bowen Basin around Moranbah.

The predicted fundamental changes to the dynamics of the East Coast Gas market are now very evident. What has traditionally been a buyers' market for gas has, in a matter of a few short years, transformed into a seller's market. These changes have been driven by a tripling of gas demand by the Curtis Island export LNG facilities. Whilst such demand growth in itself is not an insurmountable issue, the fact that the LNG proponents currently have insufficient deliverable gas molecules in the short and medium term from their own respective portfolios to supply all 6 LNG trains on Curtis Island, does have implications for the broader east coast gas market. As Blue Energy has been noting for some time now and as main stream media now acknowledges, third party gas is being drawn to Curtis Island from as

far afield as the Cooper Basin and Victoria. This is impacting gas volumes that previously would have been available to the domestic gas market. The result is that those industrial gas users still seeking to secure more gas supply to maintain business continuity are exposed to a seller's market which is now only offering short term supply at a price which reflects limited supply (ie higher prices).

Those businesses reliant on gas as feedstock and did not lock in long term gas supply contracts several years ago, (at lower prices) are now at risk of not being able secure sufficient long term gas. However, aggregation of gas user long term demand and cooperation between explorer/producers and gas customers would revitalize the onshore gas sector and allow appropriate planning for the exploration and production sector to deliver gas to the market in a timely manner, which Governments could then assist with.

Domestic gas demand in 2017 is forecast to be 597 PJ (AEMO 2016). Shortfalls in developed producing reserves for the domestic market are anticipated to occur by 2019 (AEMO 2016). Therefore, new drilling to prove up supply (ie establish more proved developed producing gas) to the existing market needs to be undertaken within the coming 18 months. To date there is no significant development drilling being undertaken specifically to meet the domestic shortfall. Should the forecasts for domestic gas demand prove to be inaccurate, the shortfall may well be considerably more than currently estimated. With lag time between identifying gas shortfall and bringing new gas production on to fill the gap lengthening, and as there is no significant storage capacity, the gas situation on the east coast is becoming critical.

The exponential demand growth for gas and the commensurate surge in the domestic gas price would ordinarily have sparked furious exploration activity to discover and develop more gas supplies and take advantage of the improved economics. However, exploration activity is at very low levels across the country courtesy of a combination of increased regulatory burden, Government bans on exploration, environmental activism, the world oil price and restricted capital availability.

As the ACCC found in its 2016 review of the East Coast Gas Market, the market needs more gas supply. Whilst gas pipeline regulation and gas transportation costs are an important issue, if there is no gas to fill the pipelines, the cost of transportation is a moot point. Governments are however not promoting the search for more gas and in some circumstances, are in fact outlawing onshore exploration (eg Victoria). Therefore, the process of discovery and development of new gas resources has been stalled, and will take considerable time to restart. Development of already discovered but undeveloped resources is the best mechanism to solve the gas shortage issue in the short term. This does however require cooperation from the Regulatory regime to fast track these potential developments.

Interestingly, there are now calls from Governments (notably those left in the dark from recent grid failures) for additional gas supply for electricity generation. This

is belated recognition of the need for instantaneous backup power to cover the inherent flaws in current renewable electricity supply (which by its very nature is unreliable, intermittent and an asynchronous power supply). These calls have become louder and more urgent, as those in politics are beginning to understand that the supply of affordable, reliable and available electricity (energy) underpins this country's prosperity, its industry and the standard of living of its citizens. The supply of energy is indeed an essential service and affordable, available and reliable energy is the basis for the living standards that we enjoy, jobs and growth.

### **Moranbah – Rolleston Pipeline**

Currently several different pipeline constructors are assessing the Bowen Basin pipeline proposition to connect Blue Energy's gas reserves to the southern market. Included in their deliberations will be the most cost efficient route, which may vary between companies, depending on their respective strategies and associated infrastructure. The need for a central Queensland gas pipeline spine (running north to south) is critical to connect gas supplies to all markets.

### **Gas Commercialisation discussions**

Blue Energy is currently engaged with several parties interested in purchasing gas. The parties include both existing gas users and new entrants. The volumes sought range from several PJ/annum to volumes that would see development of the Blue Energy's entire reserve base (currently 300 PJ of 3P reserves). The market will be updated should concrete agreement be reached.

### **NT gas exploration moratorium**

The effect of the Northern Territory moratorium on Hydraulic Fracture Stimulation has been to shut down exploration for gas and oil across the Territory. The terms of reference for the "Scientific Inquiry into Hydraulic Fracturing in the Northern Territory" have been fixed and panel members appointed. There is, however no set time limit for the panel to report its findings. Once the Review Panel completes its work and reports its findings to the NT Government, and the Chief Minister advises the Government's response to those findings, a better understanding of the merits of exploration in the NT will be evident. Blue has sought and been granted a suspension of work program and expenditure on its tenements in the Greater MacArthur Basin, whilst the inquiry is under way.

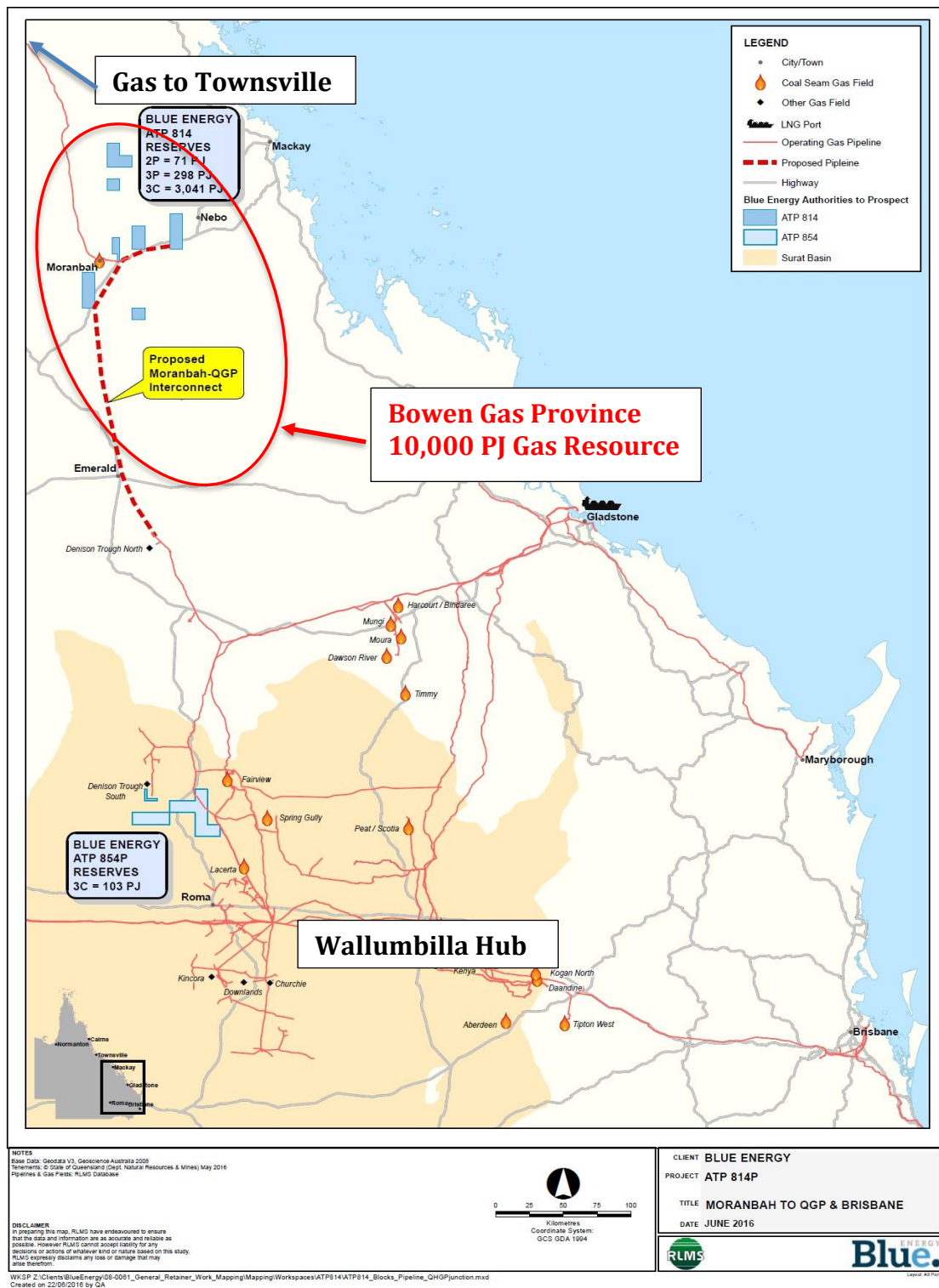


Figure 1: Proposed pipeline link between the Bowen Basin and the southern market.

## Proven Basins

### **Bowen Basin, Queensland**

#### **ATP814P (Blue Energy 100% and Operator)**

This permit currently has certified 2P reserves of 71 PJ and 3P reserves of 298 PJ (as independently estimated by Netherland, Sewell and Associates (NSAI)). It consists of 7 separate blocks, with the Sapphire Block holding the majority of the 2P and 3P reserves. There is also significant upside within the other constituent blocks comprising the Permit with a combined 3,011 PJ of Contingent Resources estimated by NSAI.

With the addition of Blue Energy's gas reserves and resources, the Bowen Basin holds in excess of 10,000 PJ of gas resource which can provide a timely solution to the East Coast gas shortage in the short and medium term.

Blue Energy is in discussions with several potential buyers who are interested in securing gas supply.

Blue continues working toward completing a Field Development plan for the Sapphire Block (see Figure 2) which will enable the grant of a Production Licence.

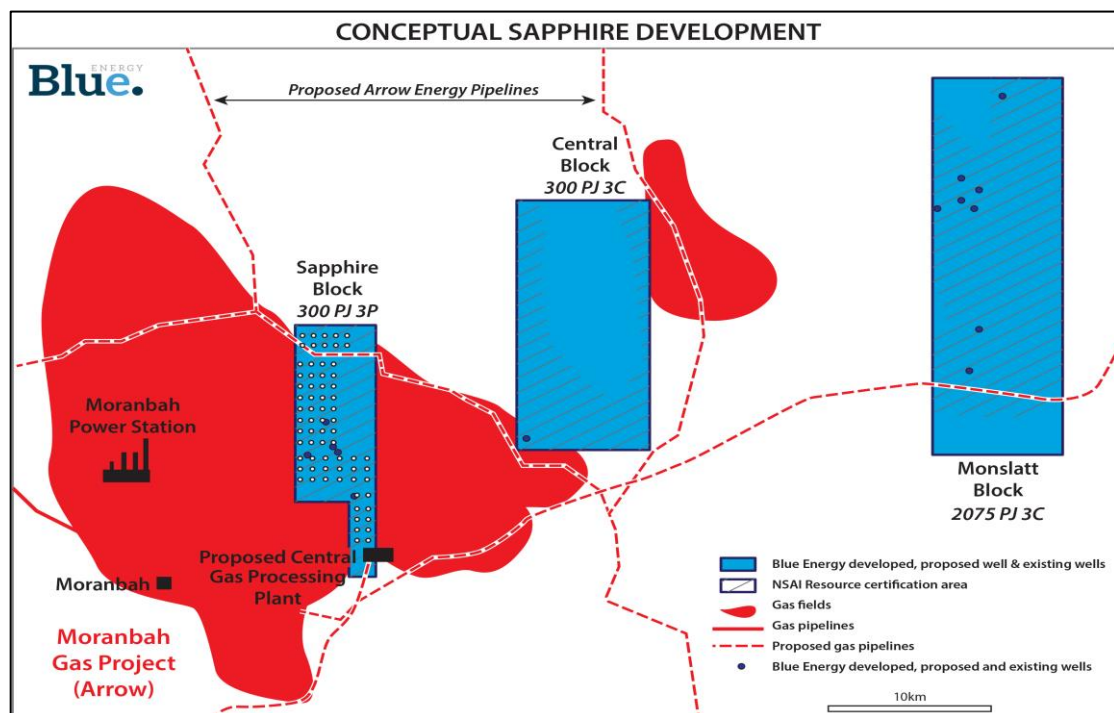


Figure 2: ATP814P Bowen Basin Queensland and conceptual well locations for Sapphire Development



## Bowen-Surat Basins, Queensland

### ATP854P (Blue Energy 100% and Operator)

This permit lies immediately west of the main gas fields supplying APLNG (Spring Gully) and GLNG (Fairview) – see Figure 3. Blue currently has 100 PJ of Contingent Resources in this permit (as per NSAI estimates). Gas export infrastructure also runs through the permit, giving access to both Wallumbilla and Gladstone.

Blue continues to market the gas resources in this permit to potential customers, in parallel with efforts in ATP814P.

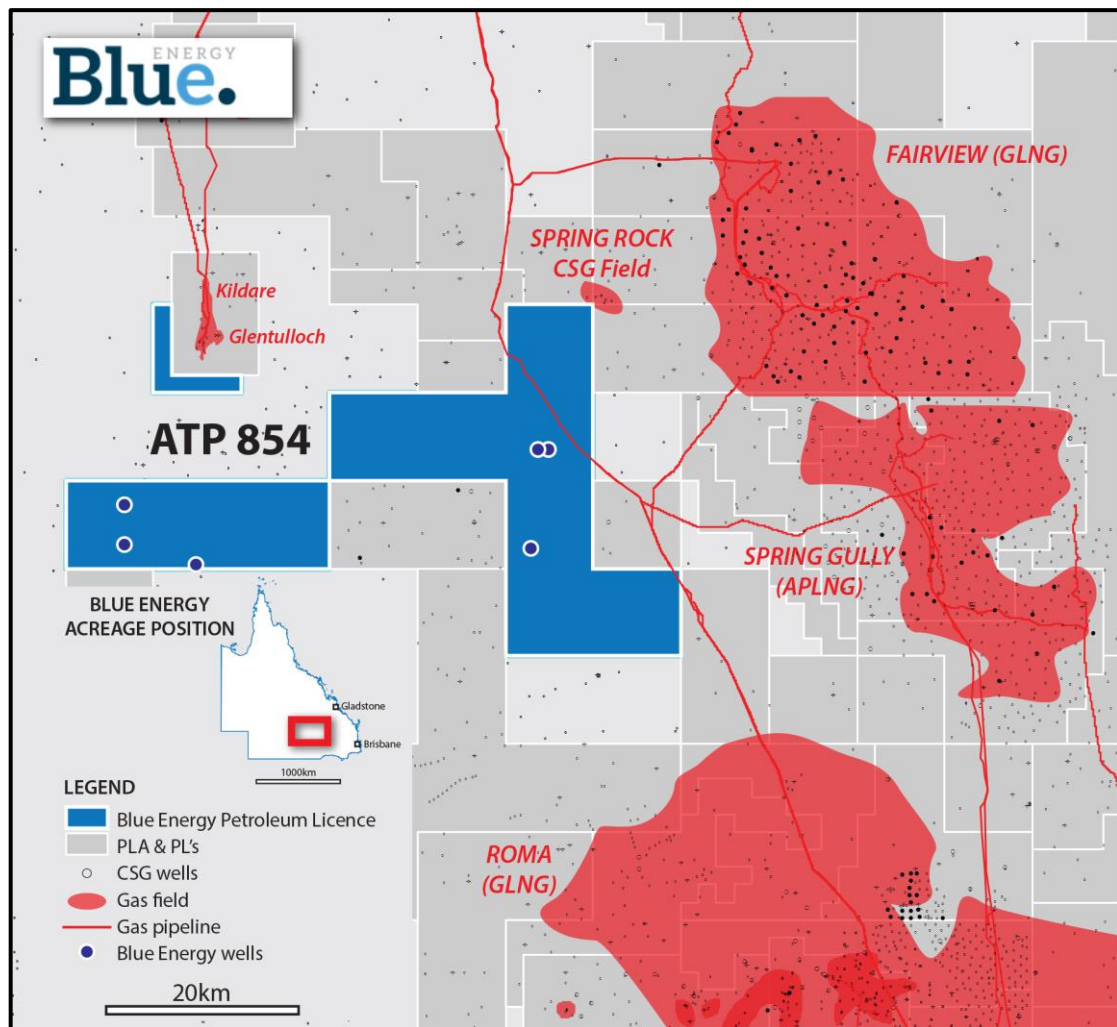


Figure 3: ATP854P Surat/Bowen Basin

## Emerging Basins

### Greater McArthur Basin

#### (various permits and equities levels - Blue Energy Operator)

Industry exploration activity in The Northern Territory has ground to a halt following the introduction of a moratorium on hydraulic fracture stimulation of by the NT Government. The new Government has initiated a review by an expert panel of the unconventional gas sector which will recommend whether the unconventional gas sector should be permitted to operate in the NT.

As a result, Blue Energy has applied for and been granted a suspension of work program for its granted tenures in the Greater McArthur Basin. This suspension is in force until February 2018, by which time the review panel will hopefully have reported to the NT Government and it is known what recommendations the Government will adopt.

## CORPORATE

### Cash Position

Cash on hand at 31 December 2016 was \$3.4m.

### Cost Reduction

Blue Energy continues to steward its available cash and find ways to reduce overheads. This continues to be a priority for management.

Permit	Block	Assessment Date	Announcement Date	Methodology	Certifier	1P (PJ)	1C (PJ)	2P (PJ)	2C (PJ)	3P (PJ)	3C (PJ)
ATP854P		30/06/2012	19/03/2013	SPE/PRMS	NSAI	0	22	0	47	0	101
ATP813P		29/10/2014	30/10/2014	SPE/PRMS	NSAI	0	0	0	61	0	830
ATP814P	Sapphire	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	66	59	108	216	186
ATP814P	Central	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	50	12	99	75	306
ATP814P	Monslatt	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	0	0	619	0	2,054
ATP814P	Lancewood	5/12/2015	8/12/2015	SPE/PRMS	NSAI	0	5	0	23	1	435
ATP814P	South	30/06/2013	29/07/2013	SPE/PRMS	NSAI	0	15	0	27	6	30
<b>Total (PJ)</b>						<b>0</b>	<b>158</b>	<b>71</b>	<b>984</b>	<b>298</b>	<b>3,942</b>
<b>Total MMBOE</b>						<b>0</b>	<b>27</b>	<b>12</b>	<b>168</b>	<b>51</b>	<b>672</b>

Table 1: Blue Energy net Reserves and Resources

## Competent Person Statement

The estimates of reserves and contingent resources have been provided by Mr John Hattner of Netherland, Sewell and Associates Inc (NSAI). NSAI independently reviews at least quarterly the Company's Reserves and Contingent Resources. Mr Hattner is a full time employee of NSAI, has over 30 years' of industry experience and 20 years' of experience in reserve estimation, is a licensed geologist and a member of the Society of Petroleum Engineers (SPE), and has consented to the use of the information presented herein. The estimates in the report by Mr Hattner have been prepared in accordance with the definitions and guidelines set forth in the 2007 Petroleum and Resource Management System (PRMS) approved by the SPE, utilizing a deterministic methodology.

### Petroleum Tenements Held

Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter
ATP613P	Maryborough Basin (Qld)	100%	100%
ATP674P	Maryborough Basin (Qld)	100%	100%
ATP733P	Maryborough Basin (Qld)	100%	100%
ATP656P	Cooper Basin (Qld)	100%	100%
ATP657P	Cooper Basin (Qld)	100%	100%
ATP658P	Cooper Basin (Qld)	100%	100%
ATP660P	Cooper Basin (Qld)	100%	100%
ATP813P	Galilee Basin (Qld)	100%	100%
ATP814P	Bowen Basin (Qld)	100%	100%
ATP854P	Surat Basin (Qld)	100%	100%
ATP1112A	Carpentaria Basin (Qld)	100%	100%
ATP1114A	Georgina Basin (Qld)	100%	100%
ATP1117A	Georgina Basin (Qld)	100%	100%
ATP1123A	Georgina Basin (Qld)	100%	100%

**Table 2: Beneficial Interests held via Farm in's**

Permit	Location	Interest Held Previous Quarter	Interest Held Current Quarter	Comment
EP199A	Wiso Basin (NT)	10%	10%	See Note 1
EP200	Wiso Basin (NT)	10%	10%	See Note 1
EP205	Wiso Basin (NT)	10%	10%	See Note 1
EP206A	Wiso Basin (NT)	10%	10%	See Note 1
EP207	Wiso Basin (NT)	10%	10%	See Note 1
EP208A	Wiso Basin (NT)	10%	10%	See Note 1
EP209A	Wiso Basin (NT)	10%	10%	See Note 1
EP210A	Wiso Basin (NT)	10%	10%	See Note 1
EP211A	Wiso Basin (NT)	10%	10%	See Note 1

**Table 3: Exploration blocks Blue is farming into to earn up to 50% equity**

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