

# Queensland

A pipeline of resource opportunities



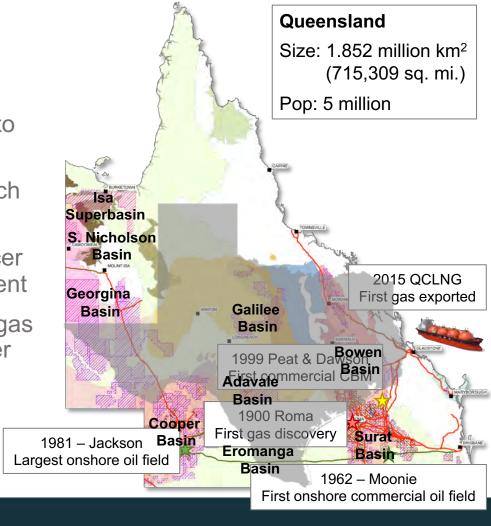
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## Overview

- 27 hydrocarbon basins, 10 producing to highly prospective
- A thriving oil and gas industry with a rich history of discoveries
- Australia's largest onshore gas producer and a global leader in CBM development
- A key supplier to Australia's domestic gas market and a world-class LNG exporter





## 2018 Industry Highlights

- Northern Gas Pipeline completed with first gas in early 2019
- 1.5 TCF of gas produced from Surat, Bowen, and Cooper basins
- 20.5 MT of LNG exported in 2018 to China, Japan, Korea, UAE, SE Asia
- 814 wells drilled, 67 E&A with several new frontier discoveries
- Exploration expenditure up 50% from 2016 levels with \$1.17B over 5 years

\*Information sourced from ASX

Tamarama 3 (Real Energy)

Basin Centred Gas

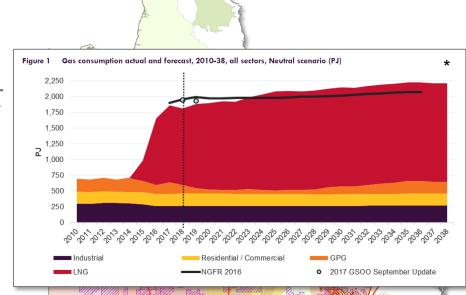
2.5 mmscf/d from multi-stage frac\*

**E&A Wells**  Petroleum CBM **Pipelines** Gas Oil Petroleum Albany 1 (Comet Ridge) First gas from Lake Galilee Sandstone 230,000 scf/d over 13m interval\* Nyanda 4 (State Gas) **CBM** and Conventional Gas CBM gas content over 11 m3/t (388 scf/t) Gas + oil charged sands\*

Myall Creek 4A (Armour Energy)
Tight gas + Condensate
Up to 3.5 mmscf/d over 300m interval\*

## Gas Markets

- ~10,000 km (6213 mi) of gas pipelines
- Domestic (East Coast) demand 500 700 PJ/annum expected to 2038\*
- LNG export demand 1200 to 1500 PJ/d after 2023 as plant utilization increases to 100%\*
- Current contingent resources base required to supply domestic market from 2021\*
- Spot market gas trading at Wallumbilla 8 to 10 AUD\$/GJ (benchmark) in 2018\*\*
- 1.6% growth in global gas demand to 2040 led by China, India, Other Asia (non-OECD)\*\*\*



Wallumbilla

**Pipelines** 

Gas

Petroleum

#### Sources

\*AEMO GSOO 2018 \*\*AEMO Wallumbilla Hub \*\*\* BP Energy Outlook 2018 1 AUD ≈ 0.70 USD

Conversions 1 PJ = 947 bbtu1 GJ = 0.947 mmbtu1PJ ≈ 0.943 BCF



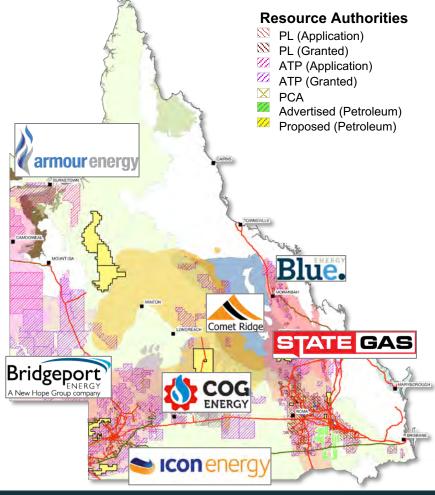
## Investment Opportunities

#### **Acreage Release**

- 22 areas in 2018/19 QEP (Queensland Exploration Program)
- PLR2018-1A (2 domestic) released 1 Nov 2018 close 28 Feb 2019
- PLR2018-1B (1 domestic) released 15 Nov 2018 close 14 March 2019
- Register at Qtenders <a href="https://www.hpw.qld.gov.au/qtenders/">https://www.hpw.qld.gov.au/qtenders/</a>
- For further information on the QEP or to submit an expression of interest contact <a href="mailto:resources-tenders@dnrme.qld.gov.au">resources-tenders@dnrme.qld.gov.au</a> or +61 7 3096 6191

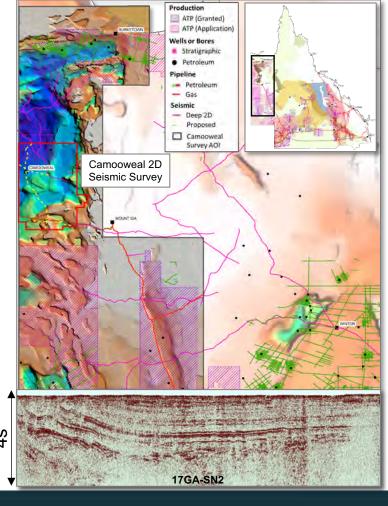
#### **Projects Seeking Investment** (\*company sourced)

Company	Acreage	Basin	Resource	PR/Other (mean)	CR (2C)	%WI
Armour Energy	ATP1087	Isa Superbasin	shale gas	22.1 TCF	154 BCF	100
Bridgeport Energy	ATPs 269, 608, 805, 948, 2022, 2026	Cooper	oil, gas, shale oil	400 mmboe		100
Cog Energy	ATPs 1104, 1195, 1093, 2039	Adavale, Eromanga	oil, gas, shale gas	181.4 TCF (P10), 570 mmbbl (2P) OGIP/OOIP		100
Icon Energy	ATPs 855, 594	Cooper	tight gas, deep coal gas, oil ,gas	28.49 TCF 13.22 mmbbl	1.57 TCF	100
State Gas	PL231	Bowen	CBM, gas, tight gas			80



## Frontier Horizons

- Proterozoic basins with significant gas prospectivity in thick, continuous, organic-rich shale units
- 1000 km of 2D seismic acquired in 2017 by Geoscience Australia (GA) under Exploring for the Future Program
- 300 km of 2D seismic being acquired by Geological Survey of Queensland in 2019
- Delivered SEEBASE® modelling to constrain the structural architecture of the basin
- APPEA Paper "Petroleum systems of the Proterozoic and a description of various play types" (Gorton and Troup 2018)
- Commercial pathway to East Coast markets through Northern Gas Pipeline acreage release potential
- Further activities in collaboration with GA to improve subsurface understanding of the region





## **Digital Transformation**

#### **Geoscience Data Modernization Project**

- Modernising the collection and management of geoscience data
- Enabling data driven decision making to increase exploration success
- Pilot data lake with end-to-end demonstration planned for March 2019
- Program to deliver in June 2020

#### Petroleum and Gas Reporting Guideline

- New Petroleum and Gas Reporting Guideline released in October 2018
- Improve the collection and management of geoscience information
- Some of the key changes include:
  - submission of key data and metadata in standardised templates
  - introduction of well-level production reporting by month
  - expanded reporting of petroleum reserves and resources
- Transition period in 2019 with full implementation in 2020





### **Contact Details**



**Justin Gorton** Director, Basin Studies Department of Natural Resources, Mines, and Energy Queensland Government



Resources Investment Commissioner Queensland Government



Story Map: <a href="https://arcg.is/1qbWDi">https://arcg.is/1qbWDi</a>







