Jeanette Roberts Consulting

Jobs and growth - can the gas industry be part of the answer?

JCIPP, March 2019

Gas market challenges

Issues to be addressed in this presentation:

- Federal context
- Opposition agenda
- International context
- Western Australia
- Upstream gas
- Further investment
- Jobs and growth
- Global leadership
- Export skills
- Relevance beyond WA

Federal context

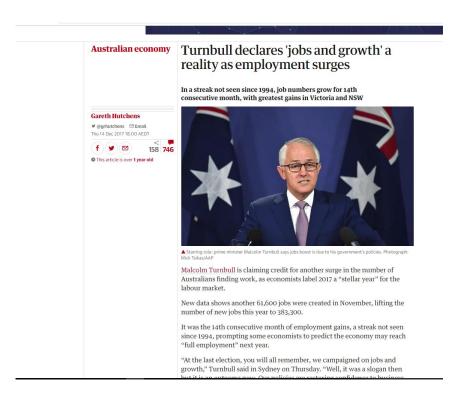
"Jobs and growth" – Coalition election slogan in 2016



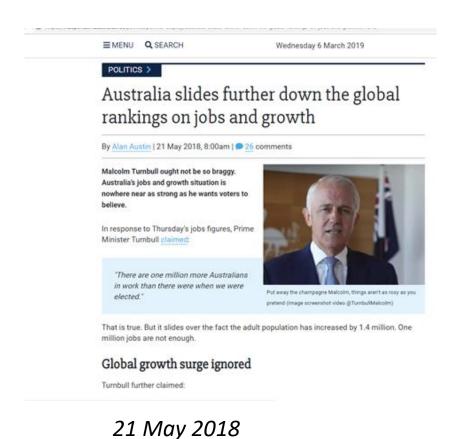
13 May 2016

Federal context

Reality may have been a little different



14 December 2017

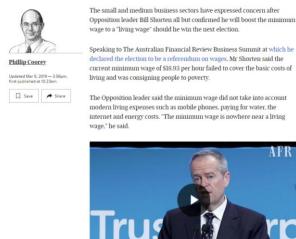


Opposition agenda

- Opposition lining up jobs as a key election issue
- Focusing on wages, local content, regions



Business alarmed as Shorten flags 'living wage' to replace minimum wage

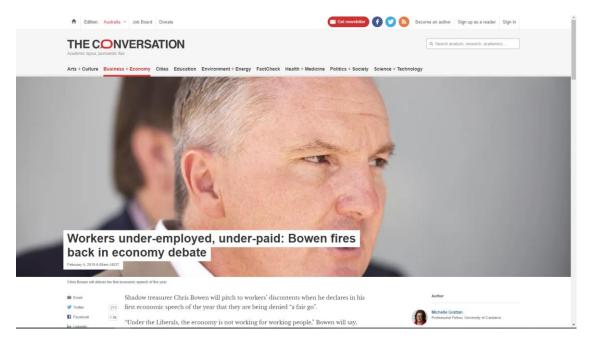


24 January 2019

6 March 2019

Opposition agenda

 Debate is heating up, despite the fact that an election has not yet been called



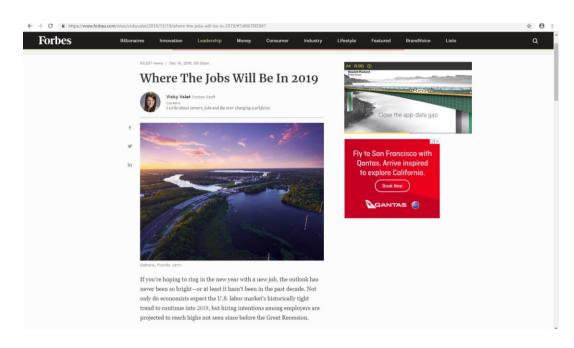
4 February 2019

International context

Positive signs globally

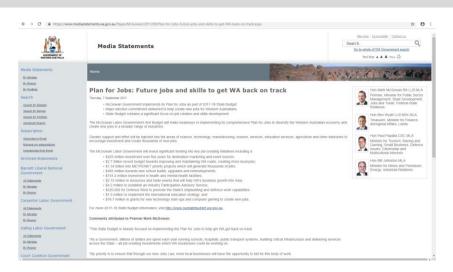
US jobs market can have an impact on oil

and gas in Australia



19 December 2019

"Local content, local jobs, local gas"McGowan's mantra

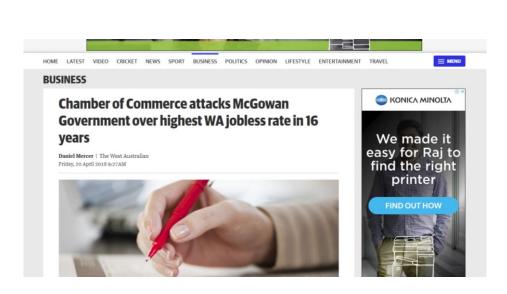


7 September 2017

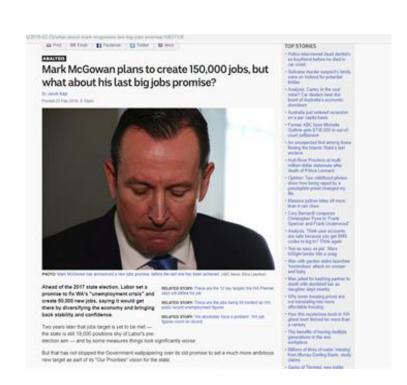


5 March 2019

Again, reality hits



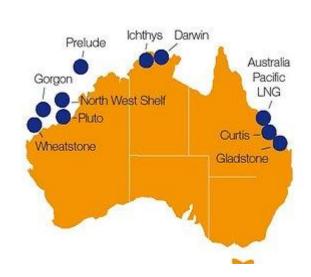
20 April 2018



23 February 2019

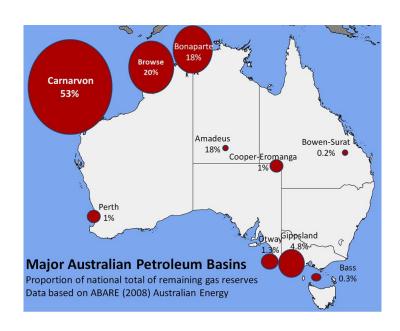
Upstream gas – current context

- We now have 10 LNG liquefaction plants around Australia
- 7 of these were constructed in past decade
- Australia is now the world's largest LNG producer
- We have the world's first large scale Floating LNG
- We are the only country to convert Coal Seam Gas (CSG) to LNG



WA is gas rich

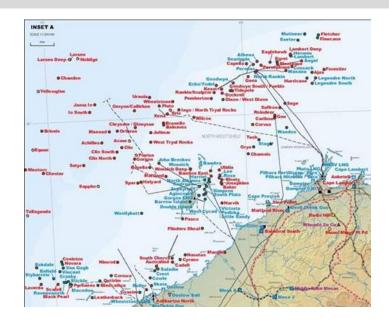
- There are huge, world scale gas reserves located offshore WA
- Recent projects such as Gorgon, Wheatstone, Ichthys and Prelude are producing some of these reserves
- There is plenty of gas still to be developed



Plenty of undeveloped gas

There are plenty of gas fields still to be developed offshore WA:

- Browse
- Scarborough
- Crux
- Burnside
- Crown
- Poseidon
- Equus
- Dorado

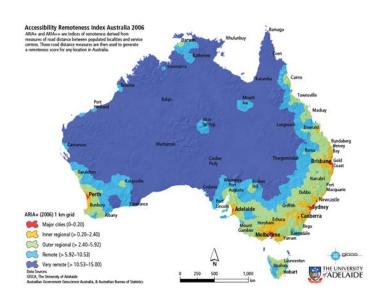


- All of these have the potential to be major gas projects
- The installed base of LNG plants along the coast enables tiebacks and third party processing

Geography remains our challenge

The gas fields are:

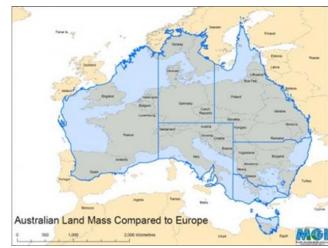
- Far from Perth
- Far from Australia's major population centres
- Many of them are far offshore



 By contrast, Europe has a far more extensive gas infrastructure

 But there are way more people, and the distances are much smaller





Further investment already underway Strategic Energy Insights

The next wave of investment is already under development:



Woodside – Browse

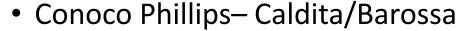
Woodside – Scarborough



• Shell – Crux



Santos – Dorado





Chevron – Gorgon Stage 2

Chevron - Jansz Io compression



Inpex – Ichthys 2B

All of these are major, world-scale projects

- Oil and gas is an international industry
- Global movement of people and skills is essential to success
- Government needs to understand and support this eg 457 visas



Iobs Available - Oil & Gas

UK | US | Canada | Australia | China | Japan | UAE Saudi Arabia

»Financial Operations Officer »Mechanical Engineering Mngr »Data entry & Contracts Admin »Maintenance Manager »Principal Process Safety Eng »Civil Inspector »PLC Systems Specialist Head of Technical Deprimi NACE Level 2 QA Inspector »Office/Executive Assistant »Process Controls Engineer »Reservior Engineer

»Senior Reservior Engineer »Senior Reservior engineer - Optns »Director of Business Development »Senior Manager , International Tax »Associate Resevoir Engineer »Senior Budget Analyst »Field engineering Lead »Lead Process Engineer »Corporate HSE Manager »Commissioning Engineer/Supervisor »Technical Assistant

»Principal Process Engineer »Construction Lead »Occupational Health Manager »E&I EEHA Inspector »Reservior Engineering Manager »Shift Supervisor »Commissioning Manager »Senior Software Sales Executive »Senior Drilling Engineer »Quality Assurance Engineer »Drilling Supervisor »Console Operator »Drilling En

 Upstream oil and gas is very efficient and technologically advanced

 The direct jobs are relatively few compared with other industries

 But the industry facilitates jobs growth throughout the wider economy and services sector

WA's LNG taskforce

- This is a positive move
- But it needs to be backed up by action
- It needs to be backed up by resources in all senses of the word
- In particular it needs real funding

- Oil and gas provides the opportunity for well paid, highly skilled careers.
- It provides the opportunity for Western Australians to work all over the world
- And, importantly, it fuels growth in the wider economy, resulting in jobs in other sectors



- Oil and gas skills are international and globally mobile
- They won't necessarily stay in WA, or even in Australia

But does this matter?

- Skills development policies need to start from the top, not the bottom.
- We need world class skills to compete globally

Global leadership

Where can Australians lead the world?

- Construction on a grade A nature reserve
- The world's largest non-government quarantine operation
- Global mega-projects
- Remote construction and logistics
- Large scale FLNG
- World's largest floating facility
- CSG to LNG



Export skills

- Need support to small medium enterprises (SMEs) and supply chain to develop their skills
- They need skills to export and access global markets
- Norway has been very effective with the establishment of Norwep in 1997
- But Norwep is supported and, importantly, funded by government and oil companies



Export skills

The world is a big place:

• SMEs/supply chain need export skills:

How to find customers

How to articulate their offerring

Differentiation

Why me?

- Government can provide these skills
- It's teach a man to fish!

Relevance beyond WA

- If Western Australians have world class skills they can work all over Australia as well as internationally
- If the WA economy is stronger, we pay more tax
- More tax is still good for the rest of Australia (even after the GST distribution reforms)
- WA gas is available to the east coast gas market via LNG import terminals under development – eg Port Kembla



- Jobs and growth are current issues across the political spectrum
- In Western Australia, there is plenty of gas, much of it underdeveloped
- The next wave of investment is already underway

- Upstream gas provides direct jobs, and employment throughout the wider economy
- It enables Western Australians to develop world class skills
- It enables Western Australian businesses to access global markets
- It's good for Western Australia, it's good for Australia, and it's good for business.

Strategic Energy Insights

