



Coal Seam Gas (CSG)

What is in it for Queensland?

Bruce Robertson
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**Institute for Energy Economics
and Financial Analysis**
IEEFA.org

Introduction

- There is a global gas glut
- Global prices for gas have collapsed, although Australian gas consumers are insulated from Global market downside
- Demand for gas is falling in Australia
- A cartel of gas industry players controls the price
- Gas sets the price for electricity
- The Australian market may become an import supplied market
- Tax what tax?
- The import terminal capacity over supply



Gas/LNG Background

LNG is natural gas cooled to **-162°C**

2nd

largest LNG exporter in the world in 2018

Australia exported **75 million tonnes** of LNG in 2018–19



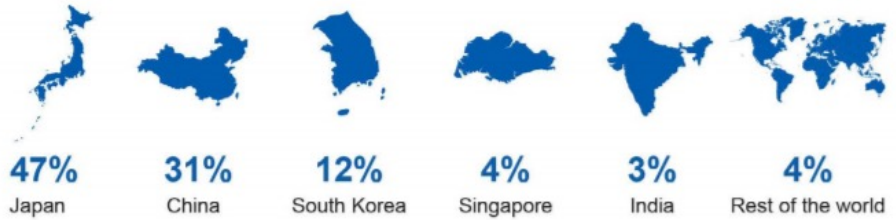
21% rise from 2017–18 export volumes



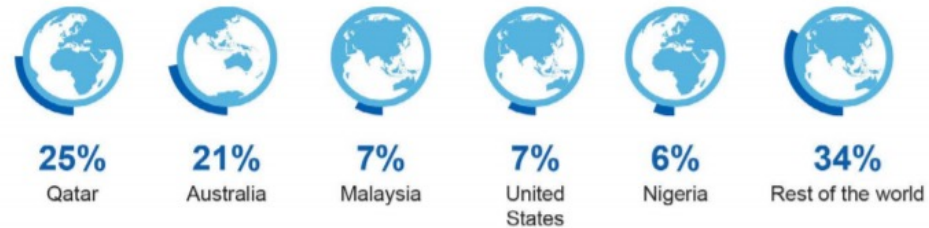
Most Australian LNG is sold at oil-linked contract prices

Combined nameplate capacity of Australia's 10 LNG projects is **88 million tonnes per annum**

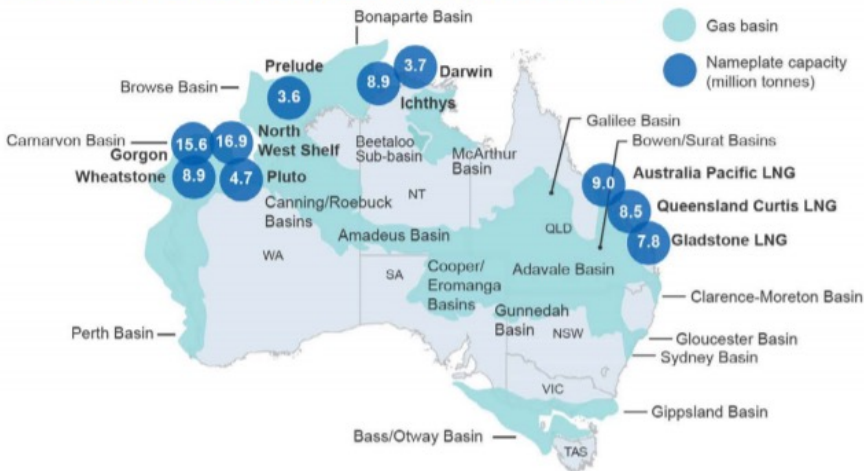
Australia's LNG export earnings by destination, 2018–19



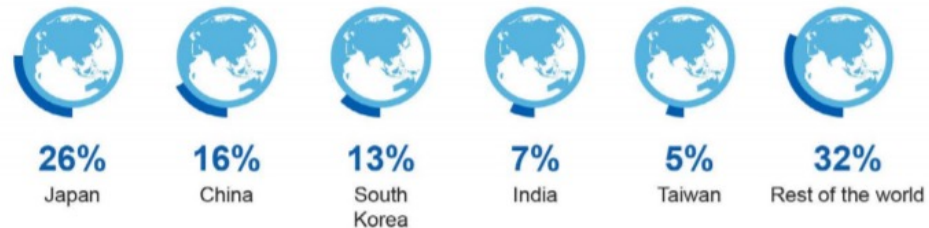
Share of world LNG exports in 2018



Australia's LNG projects and gas basins

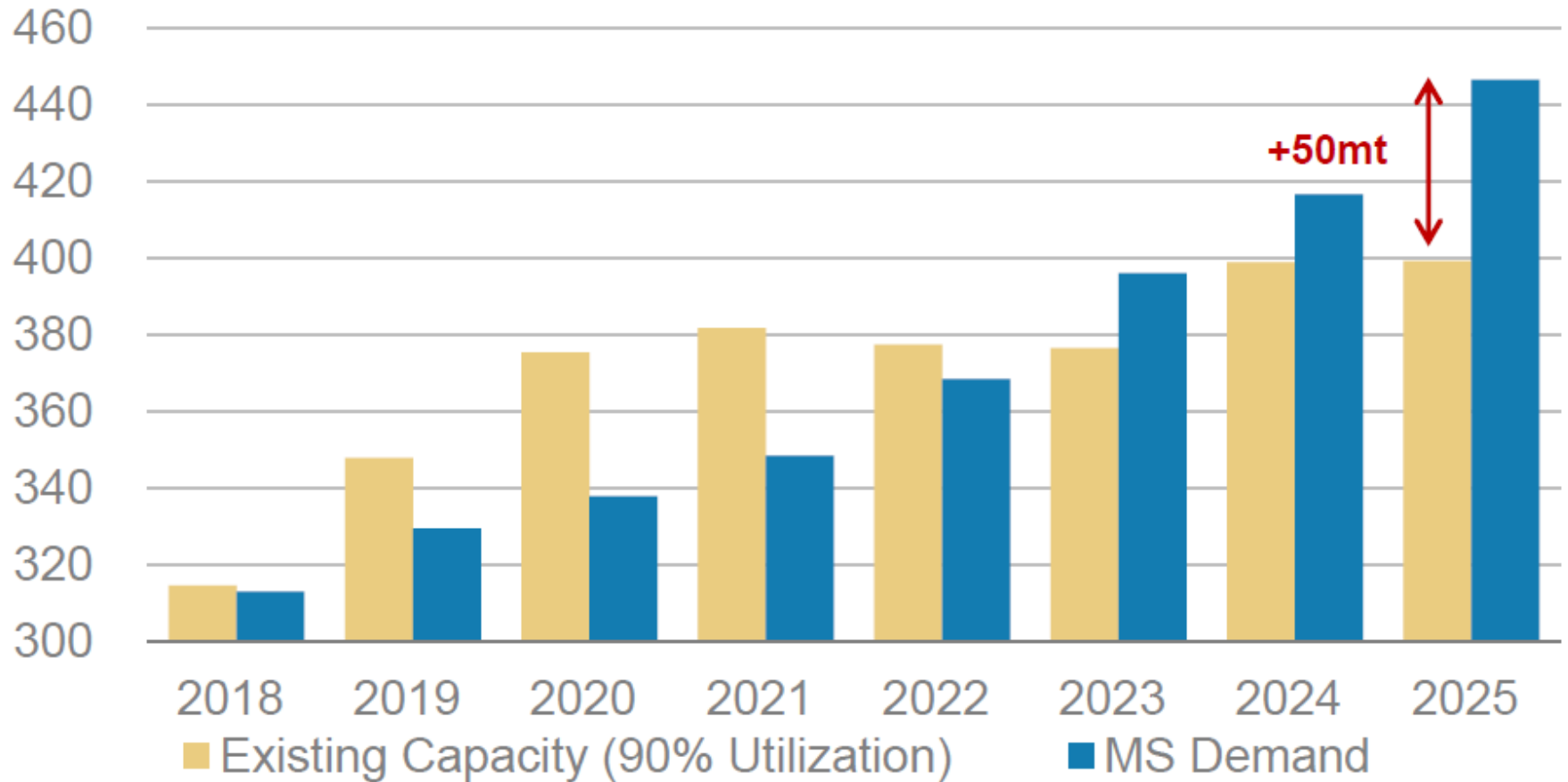


Share of world LNG imports in 2018



The Global Gas Glut out to 2023

Global LNG Supply/Demand (mtpa)



Source: Wood Mackenzie, IHS Markit, Morgan Stanley Research

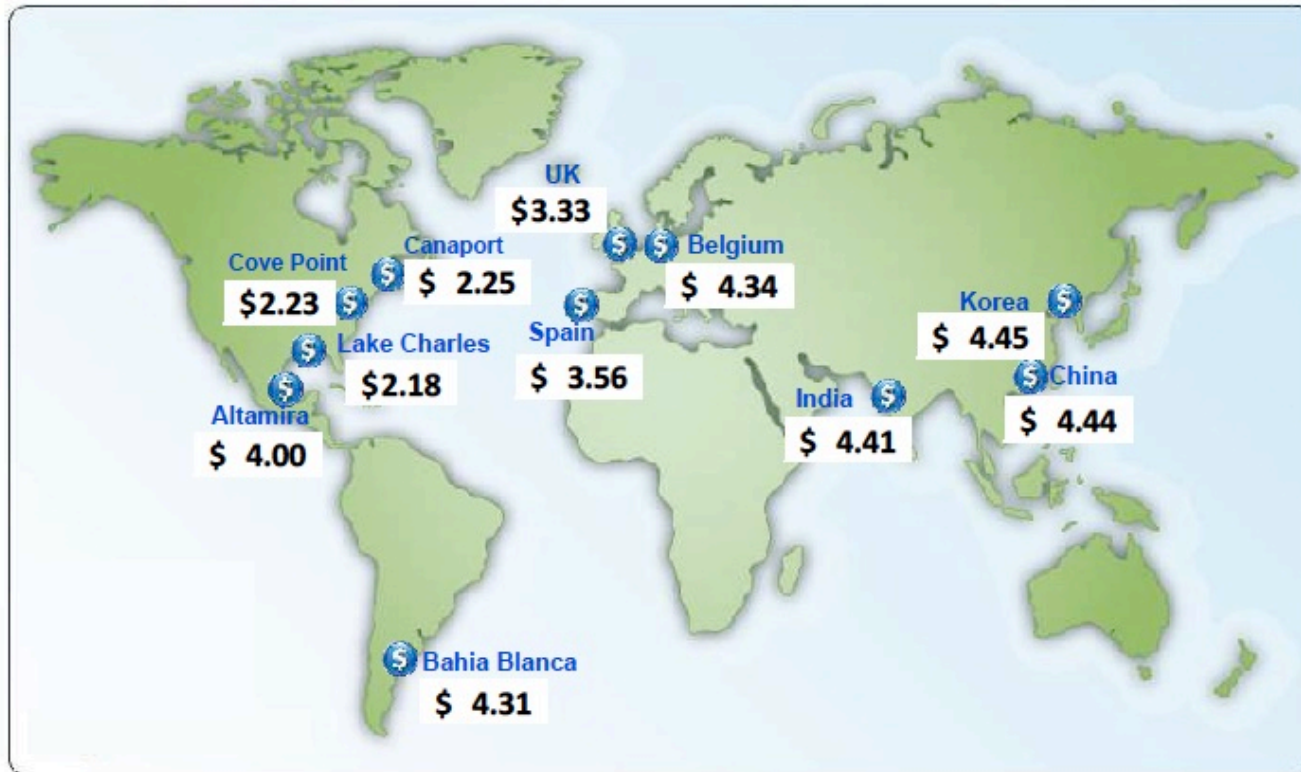
US Government sourced global LNG prices

(Note US\$4.45 /mmbtu is AU\$6.30/GJ)

National Natural Gas Market Overview: World LNG Landed Prices

Federal Energy Regulatory Commission • Market Oversight • www.ferc.gov/oversight

World LNG Estimated Landed Prices: Jun-19



Source: Waterborne Energy, Inc. Data in \$US/MMBtu.

Note: Includes information and data supplied by IHS Global Inc. and its affiliates ("IHS"); Copyright (publication year) all rights reserved. Prices are the monthly average of the weekly landed prices for the listed month. Landed prices are based on a netback calculation.

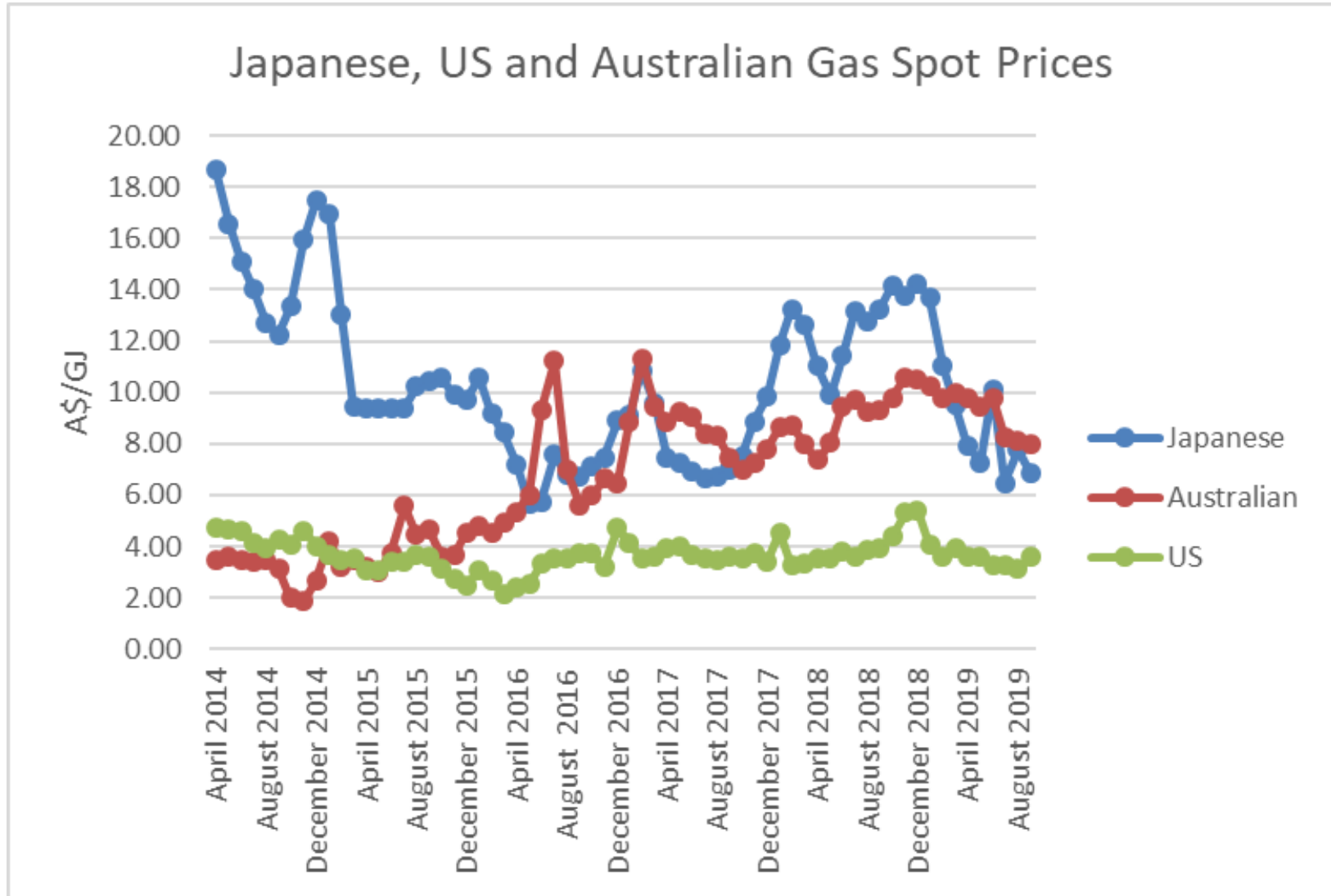
Updated: Jul-2019



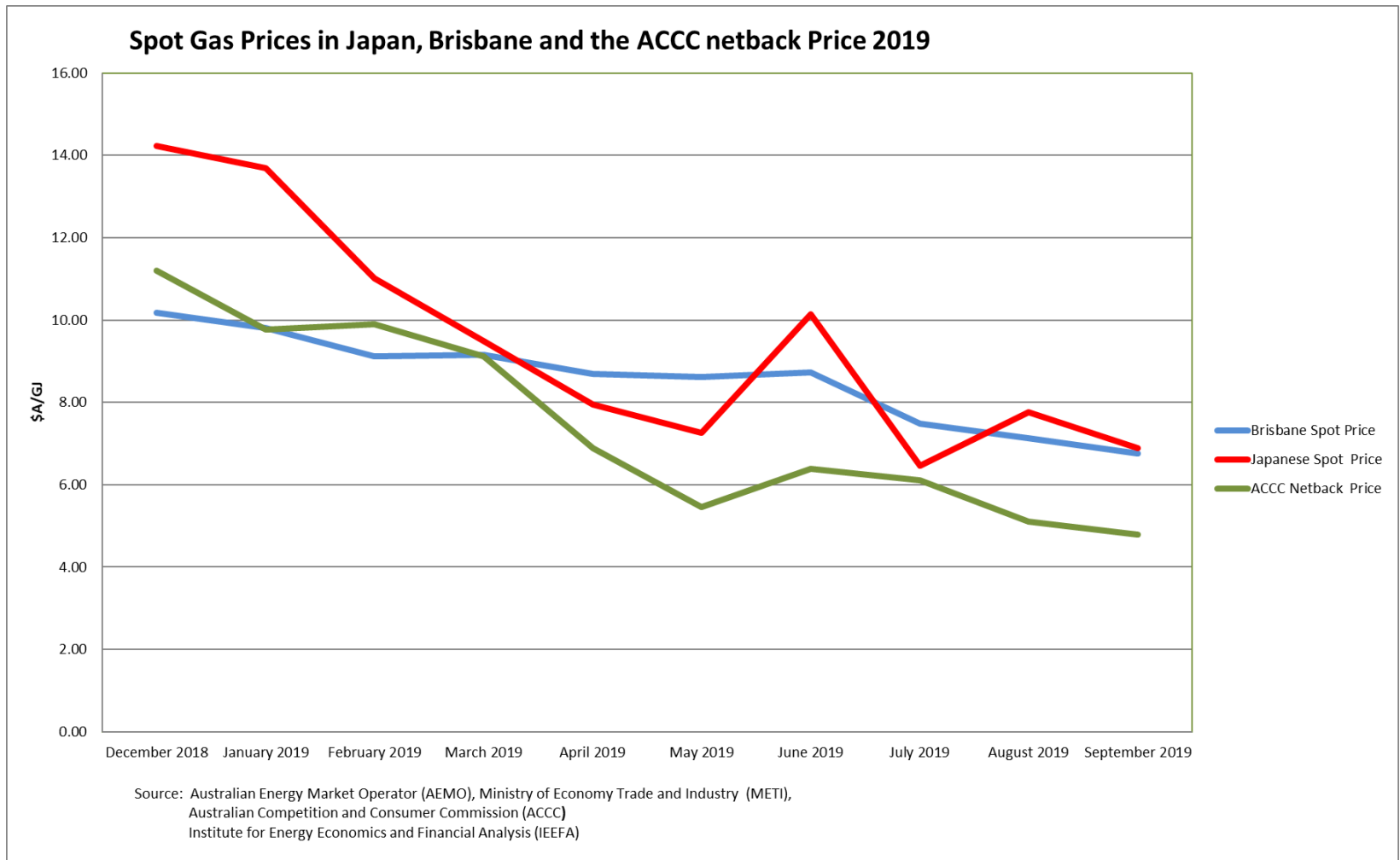
Gas Prices in Australia are amongst the highest on the globe

- Prior to 2015 the east coast of Australia had a stable domestic market for gas with reasonable prices of \$3-4/GJ
- With the advent of the construction of the six trains at Gladstone domestic gas prices increased rapidly to peak at \$21/GJ in early 2017.
- Prices have now come down and stand at between 8-12/GJ according to the Australian Competition and Consumer Commission (ACCC)

Australian gas prices globally uncompetitive



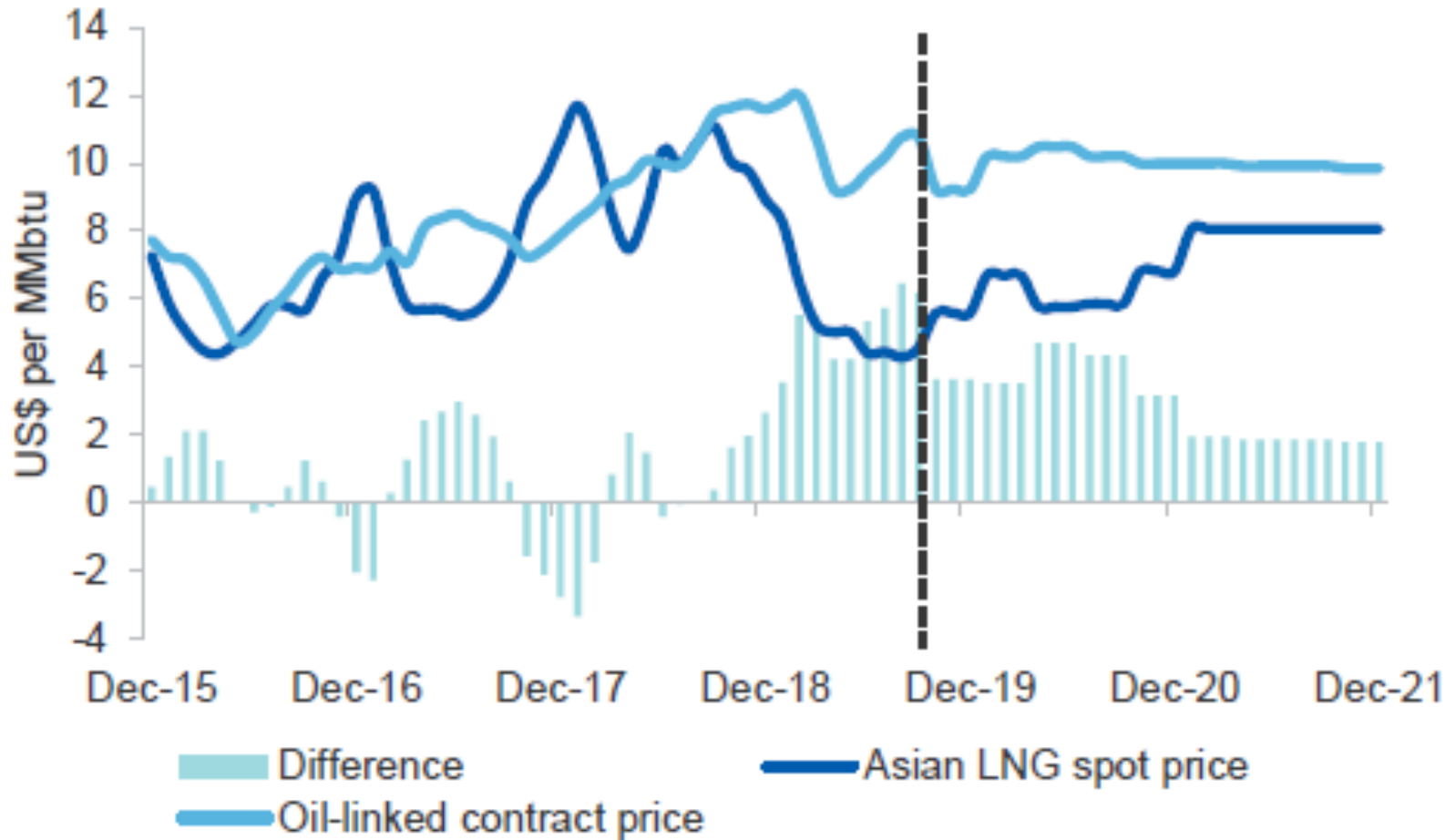
ACCC Netback price indicates the price we should be paying



Spot Gas Prices in Queensland

- The current spot gas price in Queensland is 7.82/GJ (25th October)
- The ACCC netback price in October is \$5.19/GJ
- **Queensland gas consumers are paying 51% more than export parity prices according to the ACCC**

Contract Gas & Spot Prices in Asia



Australia's Gas market controlled by a Cartel

- Prices for Spot and Contracted gas in Australia bear no relationship to either production costs or to international prices
- The east coast gas market does not exist.
- The gas cartel controls the price and sets it at levels far in excess of global parity

Australia to become an import supplied market!?

- The extent of the gas price gouge means it is now economic to import gas into Australia.
- There are currently five gas import terminal proposals in Australia.
- If all are built, they will have the **capacity to supply 88% of Australia's east coast market**. Australia - the world's largest gas exporter - will be an import supplied market.

Australian Gas Import terminals – Oversupply?

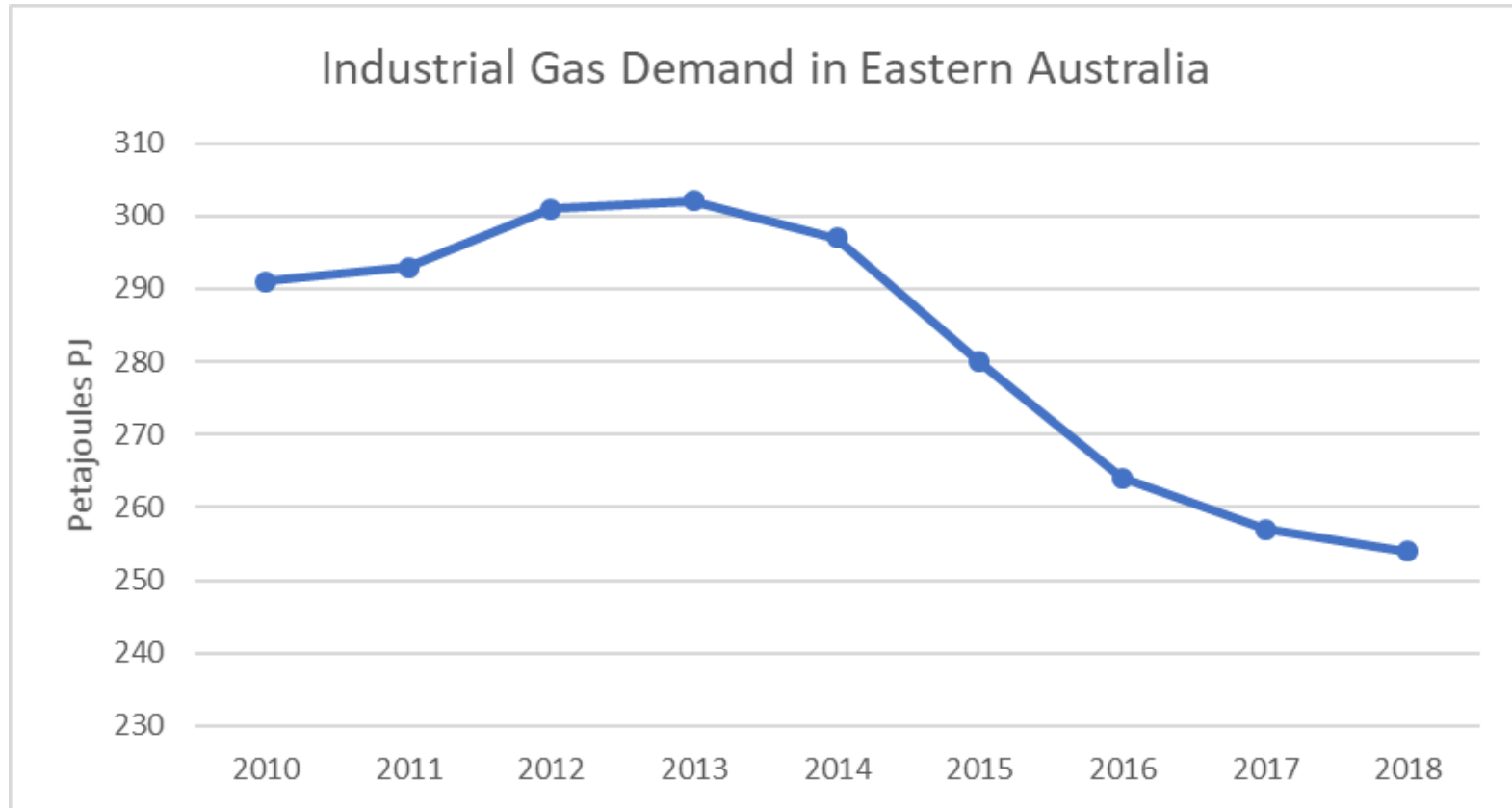
Australian Gas Import Terminal Proposals as at October 2019

Location	Consortium	Consortium Members	Capacity (PJ)	Expected Cost (A\$M)	Proposed Start Date
Newcastle, NSW	Energy Projects & Infrastructure Korea (EPIK)	Kogas	110	\$589	Commenced preliminary works with the Port of Newcastle
Woolongong, NSW	Australian Industrial Energy	Squadron Energy, JERA, Marubeni	180	\$400m	First gas to market in 2021
Cribb , Vic	AGL	AGL	100	250	First gas to market in 2021,
Victoria	ExxonMobil	ExxonMobil	50*	150	2022
Pelican Point, SA	Venice Energy	Mitsubishi, Integrated Global Partners	50*	750-800	December 2020 (inc. a 500MW power station)
Total			490		
*IEEFA estimate					

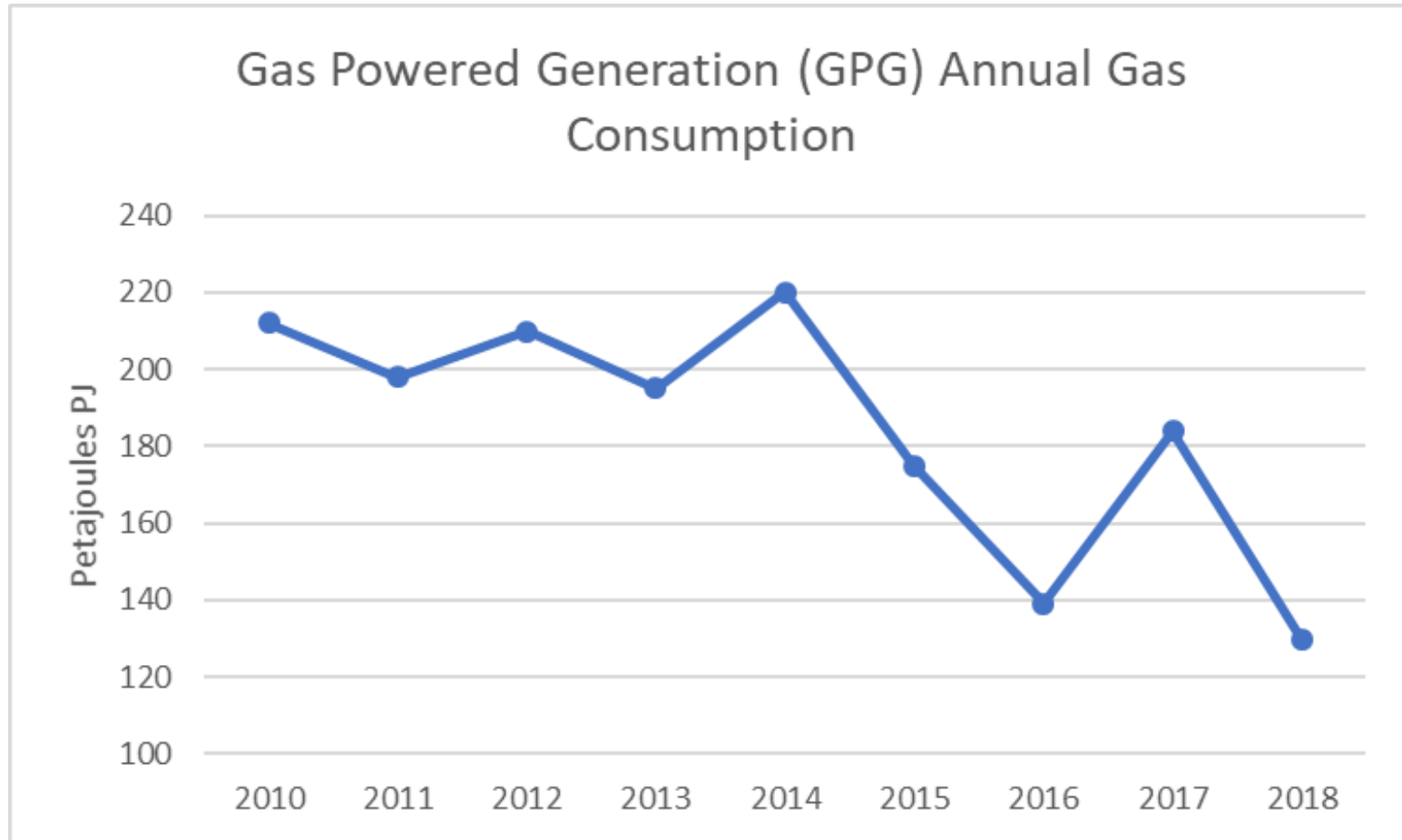
Climate Change effects of LNG & Importing Gas

- LNG industry uses around 3.2% of the total demand for Electricity on the East Coast of Australia
- Gas used in exports at Gladstone 150PJ which is equivalent to 28% of the entire domestic gas consumption in Eastern Australia

Industrial Gas Demand is falling



Gas Powered Generation demand plummets



Gas sets the price for electricity in the National Electricity Market

- Gas sets the price for electricity in the NEM as it is the highest cost producer. High gas prices have led to very high wholesale power prices.
- Gas prices have tripled in recent years. The ACCC has estimated that for every \$1 rise in the gas price, the wholesale price rises by up to \$11/MWh.
- If we had a domestic gas reserve at \$5/GJ average wholesale electricity prices would almost halve.
- Retail electricity bills would fall by \$270pa
- Commercial and Industrial consumers of electricity would see their bills fall by 27%

What taxes and royalties were promised

- Catherine Tanner, CEO of BG Group stated in October 2010

"We also expect to pay about \$1 billion a year in federal taxes and a further \$300 million or so each year in royalties to the Queensland government," Ms Tanna said today.

- Her optimism was shared by the premier

Queensland Premier Anna Bligh says BG Group's announcement would mean billions of dollars for the state's economy.

Source: <https://www.news.com.au/finance/bg-group-announces-15bn-ling-project/news-story/cca9d568605dee097d4e8489315ac357>

Royalties what royalties?

- In the 2014 budget petroleum royalties were expected to rise from \$68m in 2013-14 to \$660m by 2016-17 on the back of the boom in Coal Seam Gas (CSG). The result was a fraction of the expectation at just \$98m in 2016-17.
- Royalty take by the Queensland government has been so disappointing that the rate was increased from 10% to 12.5% starting in 2019-20
- The 2019-20 State budget stated that the estimated actual royalty take from the Petroleum sector was \$450m in 2018-19. Finally some royalties are being paid although a fraction of what was expected.

Taxes what taxes?

- Taxes on the other hand have been minimal. Far from the \$1 billion in tax that BG's Tanna said her company would pay, in 2016-17 BG group paid no tax. BG has been taken over by Shell and it too paid no tax in 2016-17.
- The other 2 consortium that own plants at Gladstone are led by Santos and Origin neither of which paid tax in 2016-17 according to the ATO.
- There simply has not been the billions of dollars for the Queensland economy that were promised.

Real Estate

- **An interview with a Gladstone Real Estate Valuer in May 2018**
- **How would you characterise the local Gladstone market during this decline?**
- A: We have witnessed a very active mortgagee in possession market, and an oversupply of dwellings, townhouses and apartments.
- Values of townhouses and apartments, in some cases, have declined up to 75%, with dwellings declining around 50% from peak values when they were originally purchased to now when they have recently re-sold.
- With rapidly declining values and an increasing oversupply of housing we also saw a very active mortgagee in possession market

How good is the LNG industry?

- Total nameplate capacity of the 3 Gladstone projects is 25.4MT
- Production in 2018 was 20.6MT
- The three Gladstone projects are running 19% below capacity
- For GLNG, the Santos owned project, the situation is even worse. GLNG is running 3MT below its nameplate capacity of 7.8MT
- The CSG to LNG industry in Queensland got its costs horribly wrong
- The CSG to LNG industry is a serial “Write Off” offender.

Constructive Policy Responses

- A domestic gas reservation on existing and prospective fields at \$5/GJ
- A ban on gas for new housing developments
- Programs to transition the domestic sector off gas
- Programs to transition the industrial sector off gas
- Increased renewables for electricity generation
- Encouragement of the renewable Hydrogen sector
- Better building standards – insulation, double glazing etc
- A ban on import terminals

Conclusion- CSG- What is in it for Queensland?

- Not a lot!

