Domestic Gas Supply: Assertion and Reality

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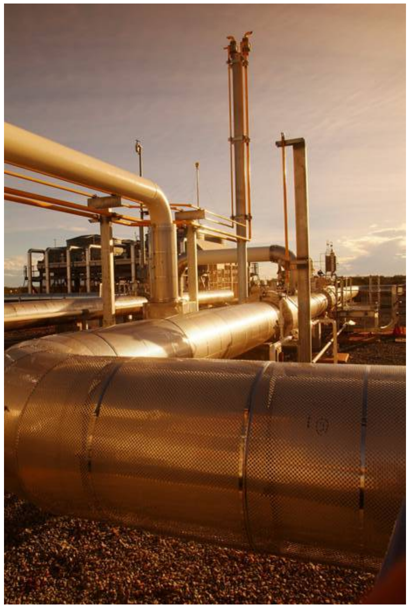
Overview

- WA's energy economy
- Australia's gas reserves
- Natural gas pricing
- Energy sustainability and climate change



Dampier Bunbury Pipeline

WA’s energy economy

Dependence on natural gas

- WA is the most energy-intensive economy in Australia
- Natural gas supplies **half** of WA’s primary energy
- Natural gas fuels **60%** of the State’s electricity generation

This dependence will continue to grow

- 900 TJ/day in new and replacement gas needed in next 6 years

- **$23 billion in projects** currently seeking gas in WA

  - 15,800 construction jobs
  - 5,250 permanent operating jobs
  - $9.2 billion in annual economic output
  - significant benefits to local communities

Australia’s gas reserves

The assertions

“Australia has abundant reserves of gas”

“Australia has over a hundred years of gas”

“Australia could become the second or third largest LNG exporter by 2015”

Despite ‘abundant’ reserves

- WA users unable to secure long term gas supplies in substantial quantity
- WA gas prices have **almost tripled**
- Prices reported for recent sales now **more than double** delivered prices in the Eastern States
- Some gas producers now demanding prices equivalent to **600%** of prices 12-18 months ago

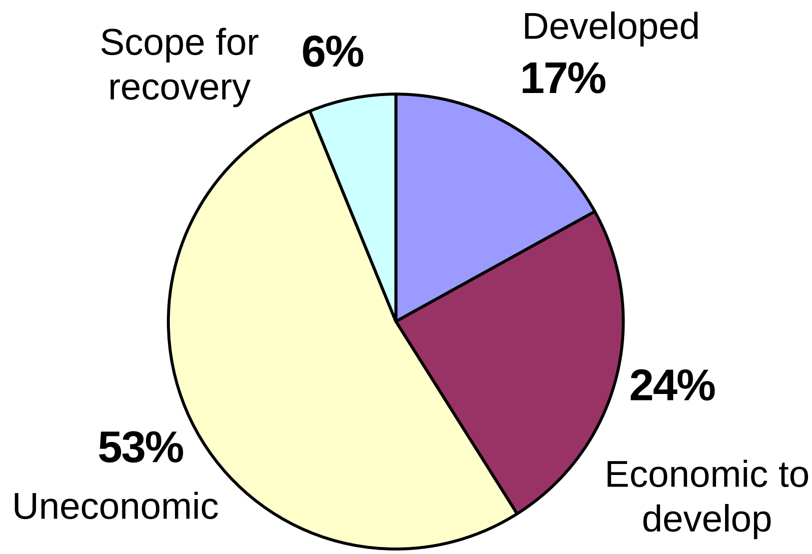
Australia only has limited reserves

- Only 2.4% of world natural gas reserves
- Little more than one year of world consumption
- 80% of reserves are located in WA
- One of **very few** low sovereign risk countries exporting gas

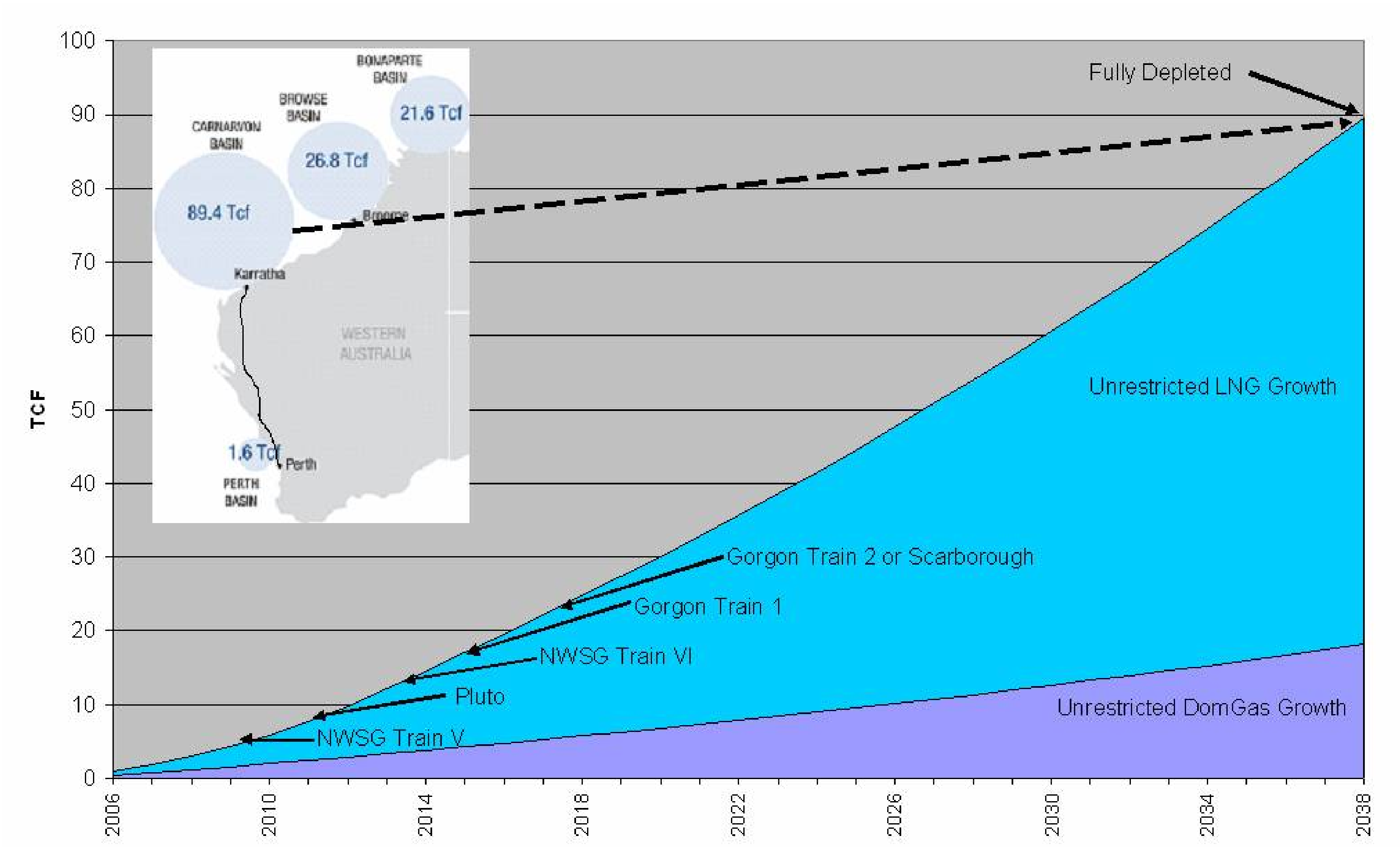
WA's reserves

- WA has around 120 Tcf of P50 reserves
- This represents only a 50% probability of recovery
- Only **17%** of reserves relates to developed fields

WA Gas Reserves



Depletion of gas reserves



Depletion could be sooner

- Government and producers aiming for 50 – 60 million tonnes LNG production per year

- Bulk of gas in the Carnarvon Basin (90 Tcf) will be **fully committed** between 2015 – 2020

Fortescue port under construction

Domestic gas pricing

The assertions

High WA gas prices reflect:

- “the international price of gas”
- “rising LNG netback prices”
- “escalating development costs”
- “failure of historical long term contracts to provide signals for new investment”

There is no world price for gas

Country	2004 $A/GJ	Country	2004 $A/GJ
Argentina	1.50	Kazakhastan	1.44
Barbados	25.76	South Korea	10.84
Bolivia	2.29	New Zealand	3.86
Brazil	12.75	Russia	1.05
Canada	7.09	UK	6.42
Chile	6.74	United States	7.99
Taiwan	10.68	Venuzuela	0.46
Japan	12.44		

* Source: US Department of Energy. 2005 data incomplete

The reality

- Recent fields have been developed on long term pricing, e.g. John Brooks
- LNG contracts have been long term, e.g. 25 year China contract signed in 2002
- Some WA users are paying more for WA gas than overseas users
- Main driver for price increases is absence of a competitive market

Domgas and LNG are not equivalent

- Different sovereign risks
- Different development time scales
- Different technology barriers
- Different development requirements

No justification for LNG netback equivalent pricing

Energy sustainability and climate change

The assertions

“Natural gas has a strategic role in Australia’s transition to a low carbon economy”

“Increased gas use is critical to reducing growth in Australia’s emissions”

“70% of total new generation capacity should be gas-fired by 2017”

High gas prices are forcing projects to switch to coal

- Current 400 MW electricity generation tender likely to go to coal

- Resource projects forced to switch to coal-fired energy

- Long term implications for **Australia's carbon footprint**

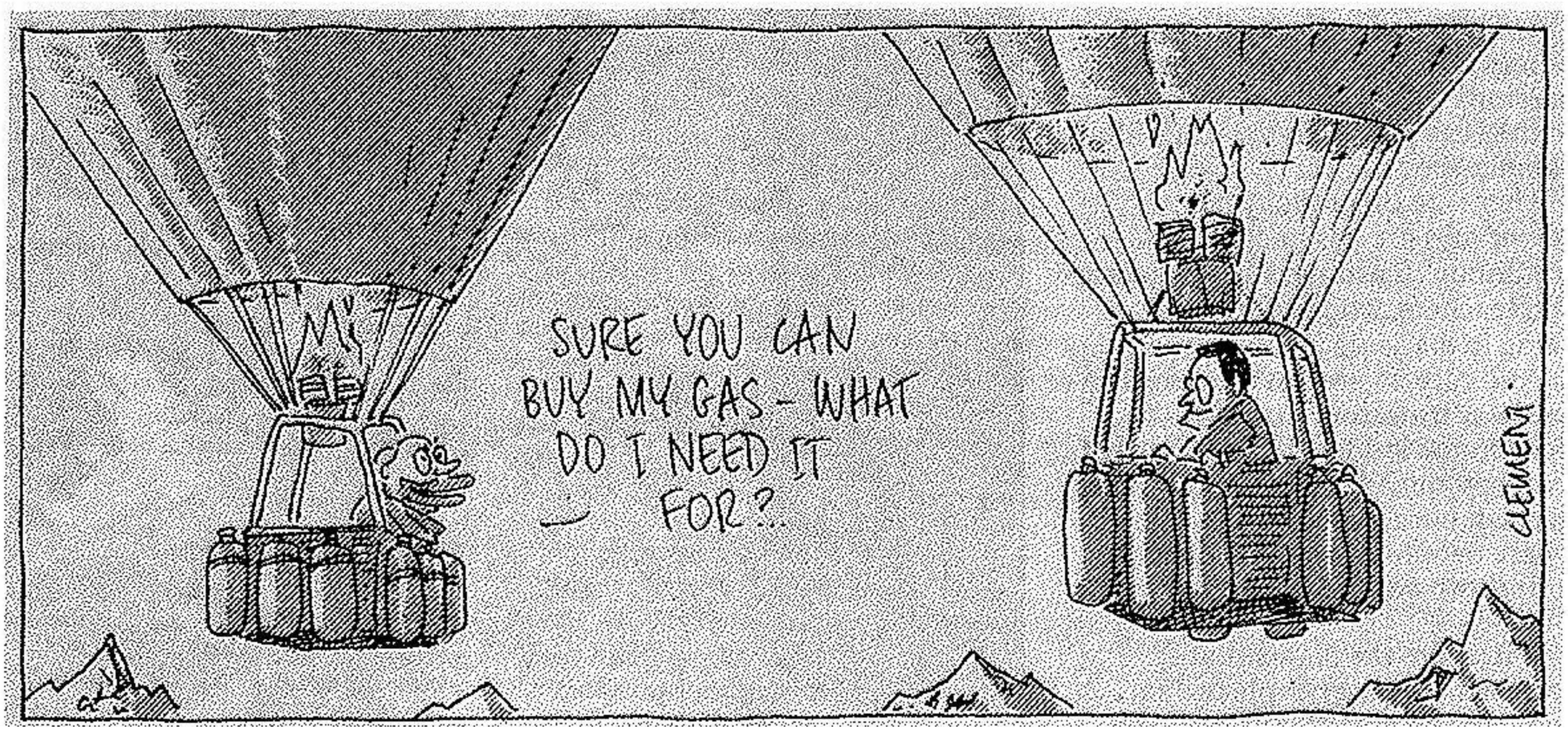
Gas fired cogeneration plant

Need for triple bottom line approach

- **Economic** – importance of gas supply for State's mining, manufacturing and process industries
- **Social** – households and local communities dependent on the wealth created by gas dependent industries
- **Environmental** – Australia's response to climate change

This must look at the long term:
50 – 100 years

Focus to date has been exports only



Australian Financial Review
12 September 2007

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