



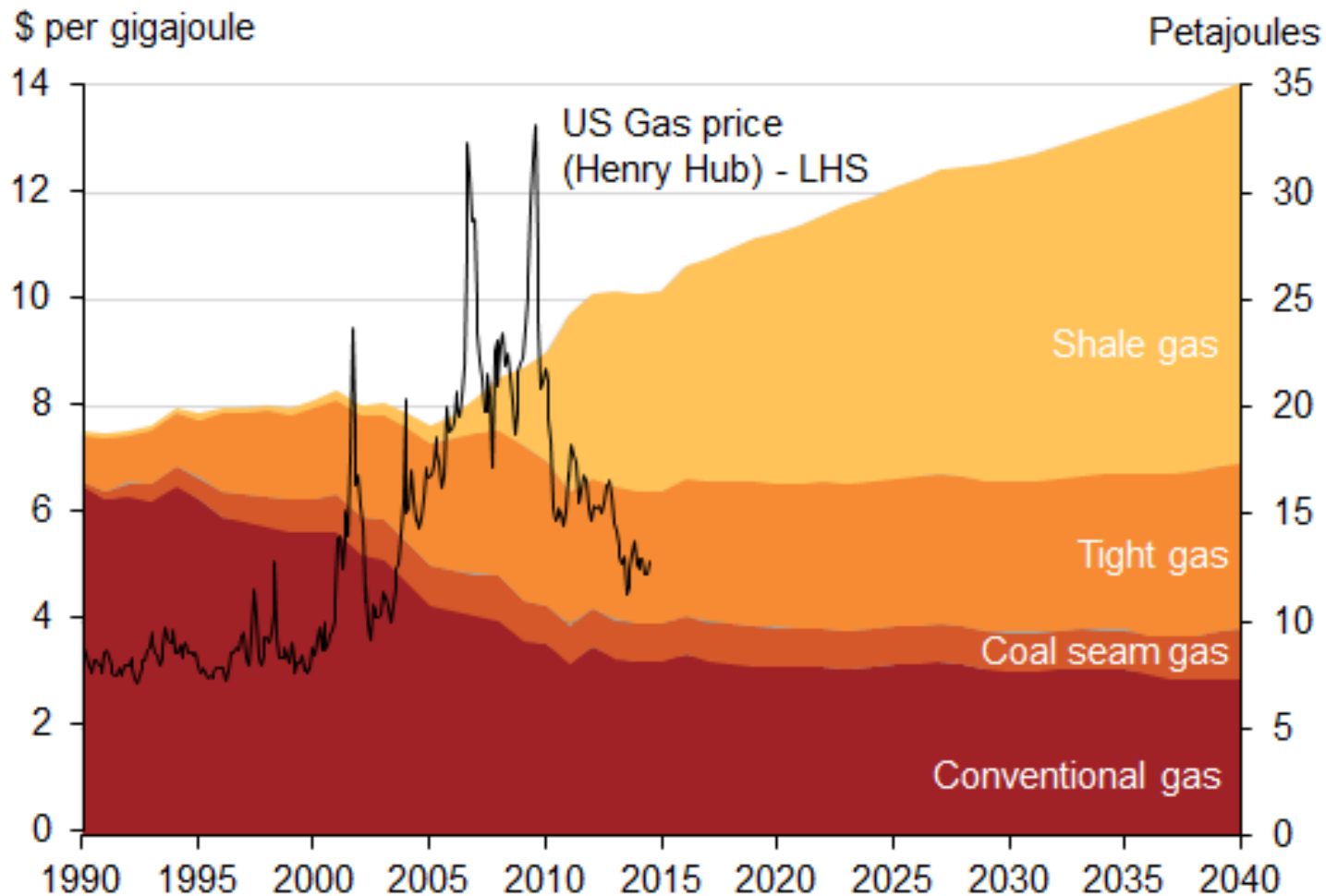
**Getting gas right:
Australia's energy challenge**

21 August 2013

Key themes

- By 2017-18 Australia could be the world's biggest gas exporter, generating more than \$53 billion a year in export earnings.
- Unconventional gas (coal seam gas in Australia and shale gas in the US) is creating a global energy revolution.
- Strong Asian demand and high prices means local consumers will face export parity prices for Australian homes and businesses.
- There is a serious risk of a shortage of gas on the east coast, especially in New South Wales.
- The long-anticipated “dash for gas” is not happening. Falling demand, rising gas prices and the renewable energy target mean no new gas-fired electricity is required for at least the next decade.

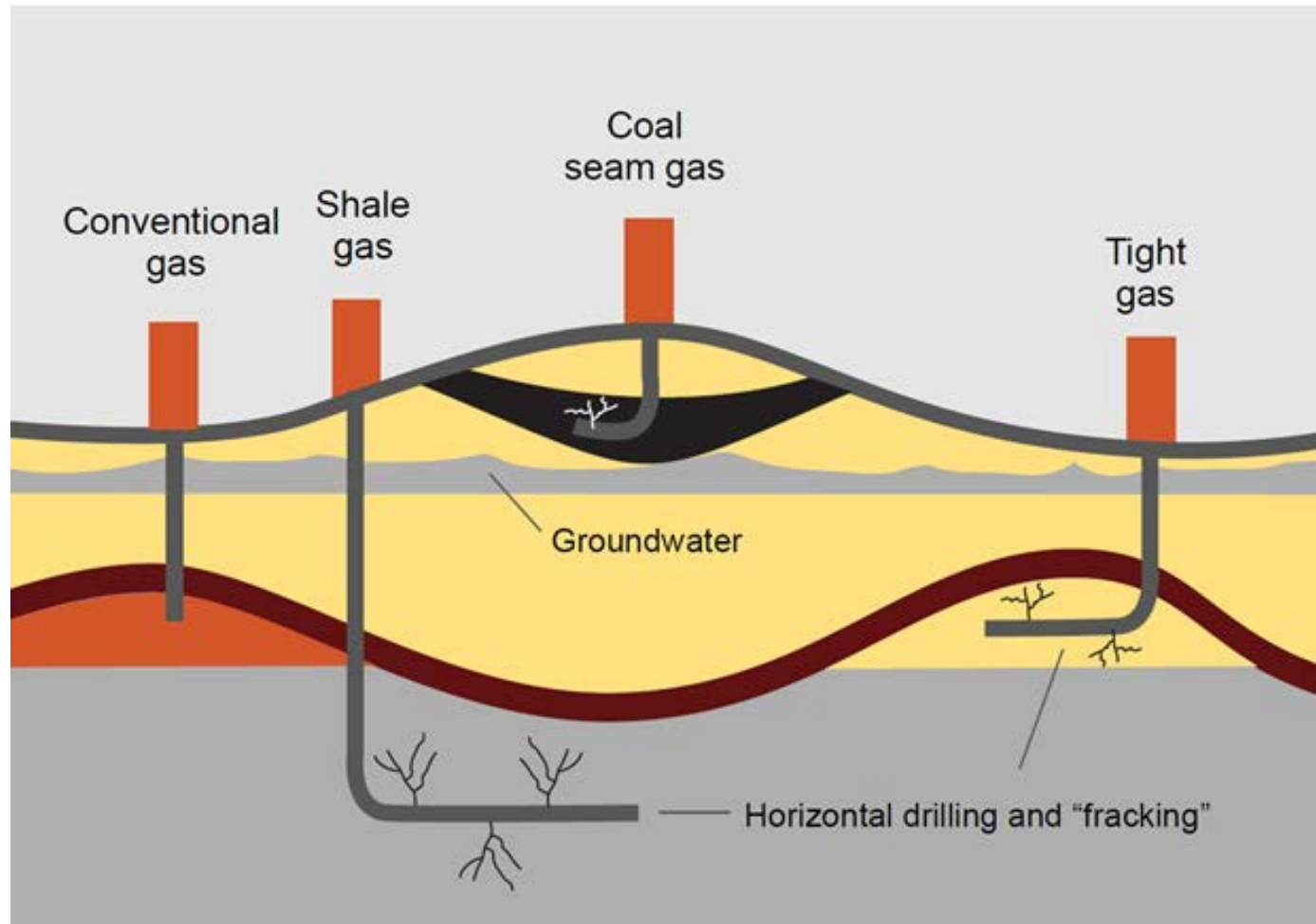
In the US, the market is working and shale gas is delivering



Source: EIA, US Geological Survey

And, its all pretty much the same gas

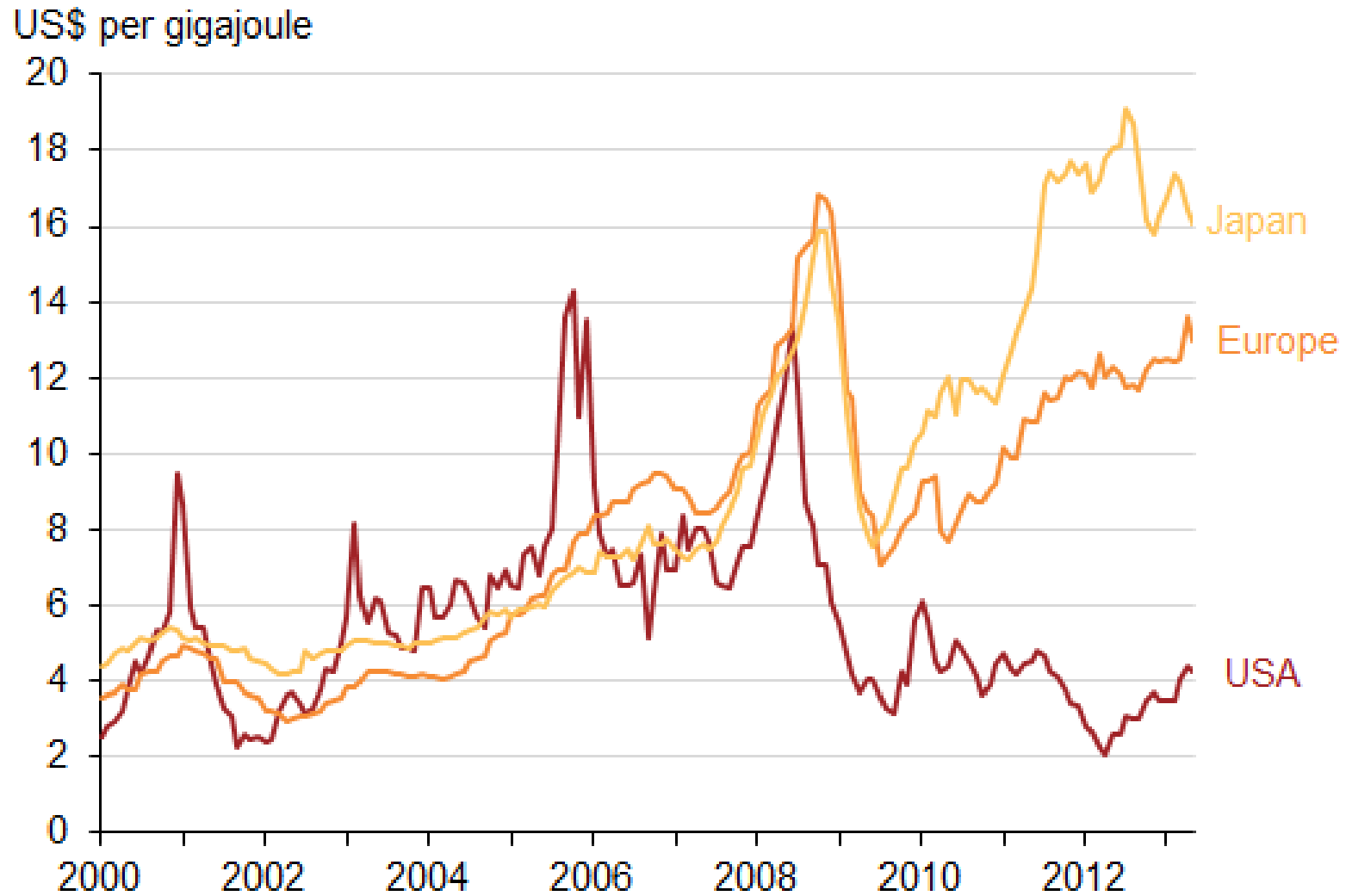
Technology has provided the vehicle to deliver unconventional gas



Source: EIA, US Geological Survey

feeding into increasingly linked regional gas markets

Global prices have separated

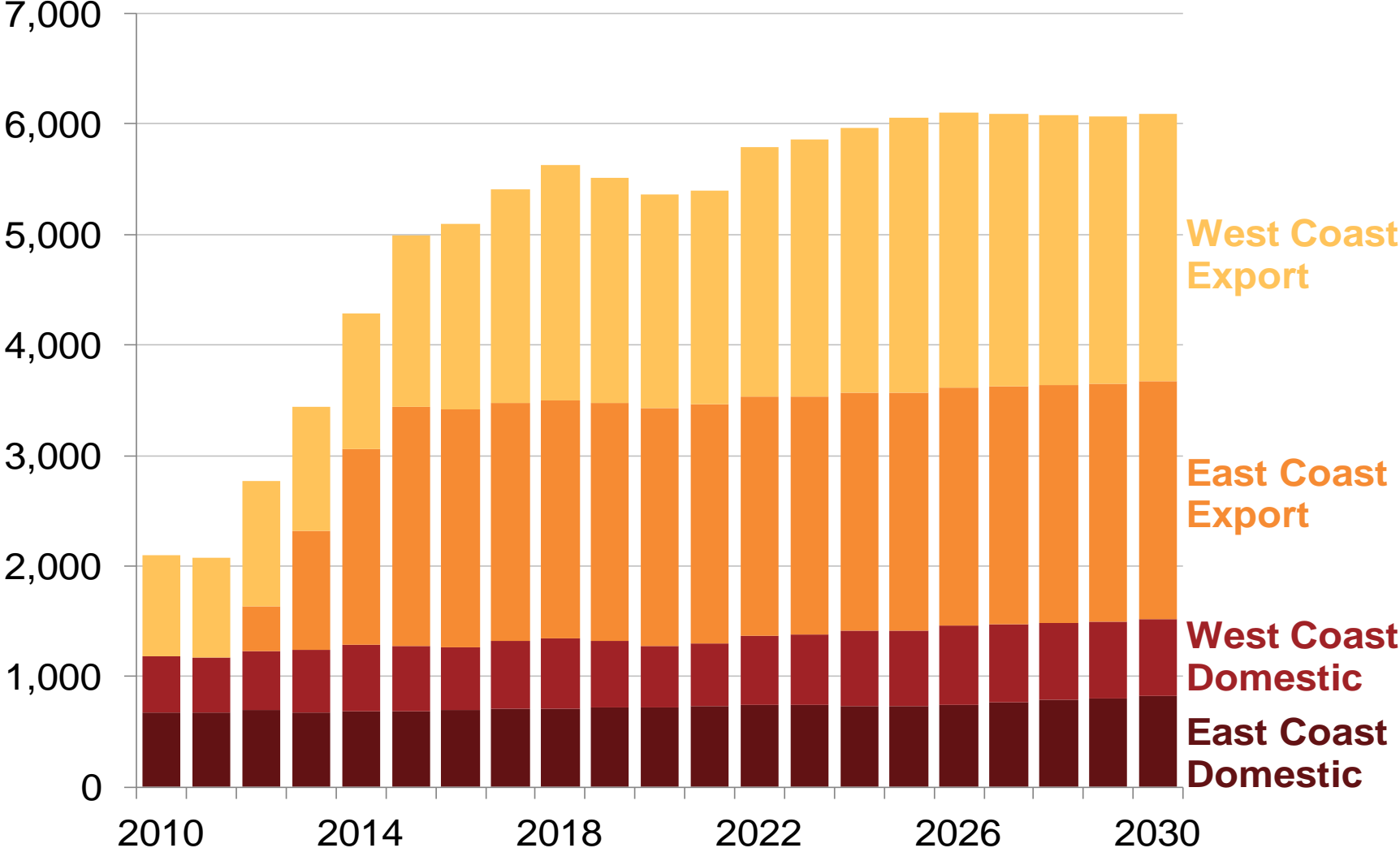


Source: World Bank

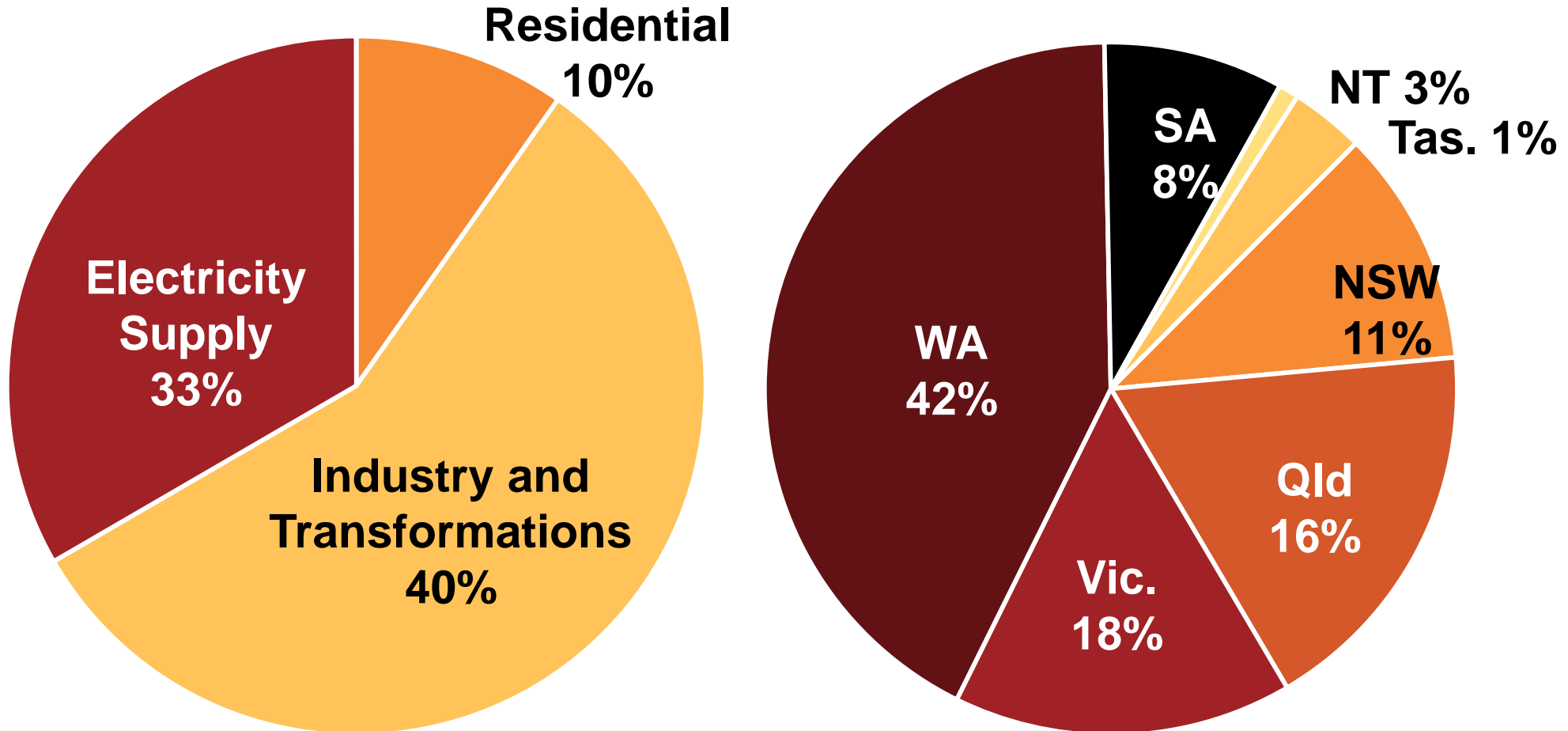
but maybe not be for long

The Australian market is responding

petajoules



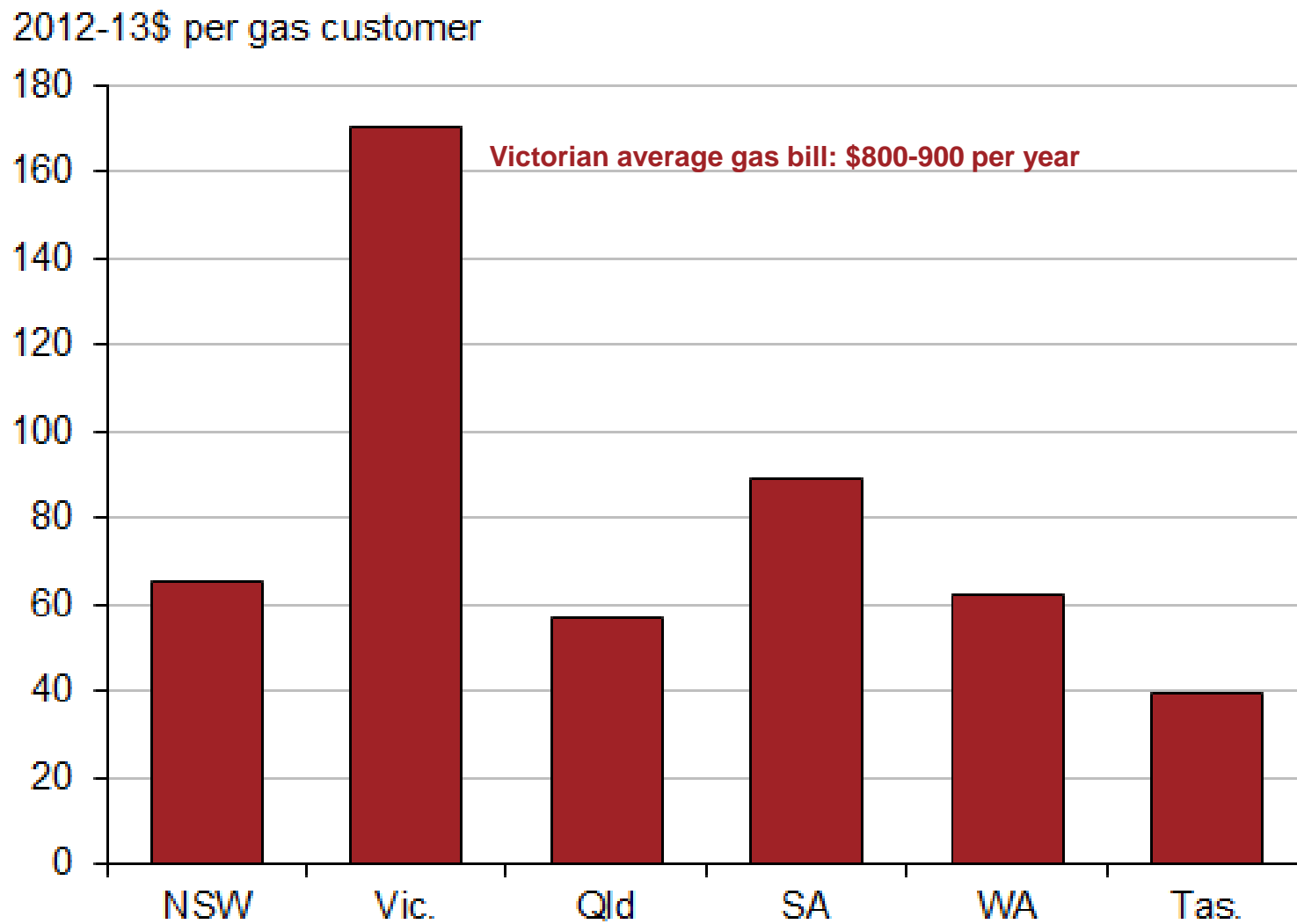
Gas plays an important, but poorly understood, role in Australia



Source: BREE

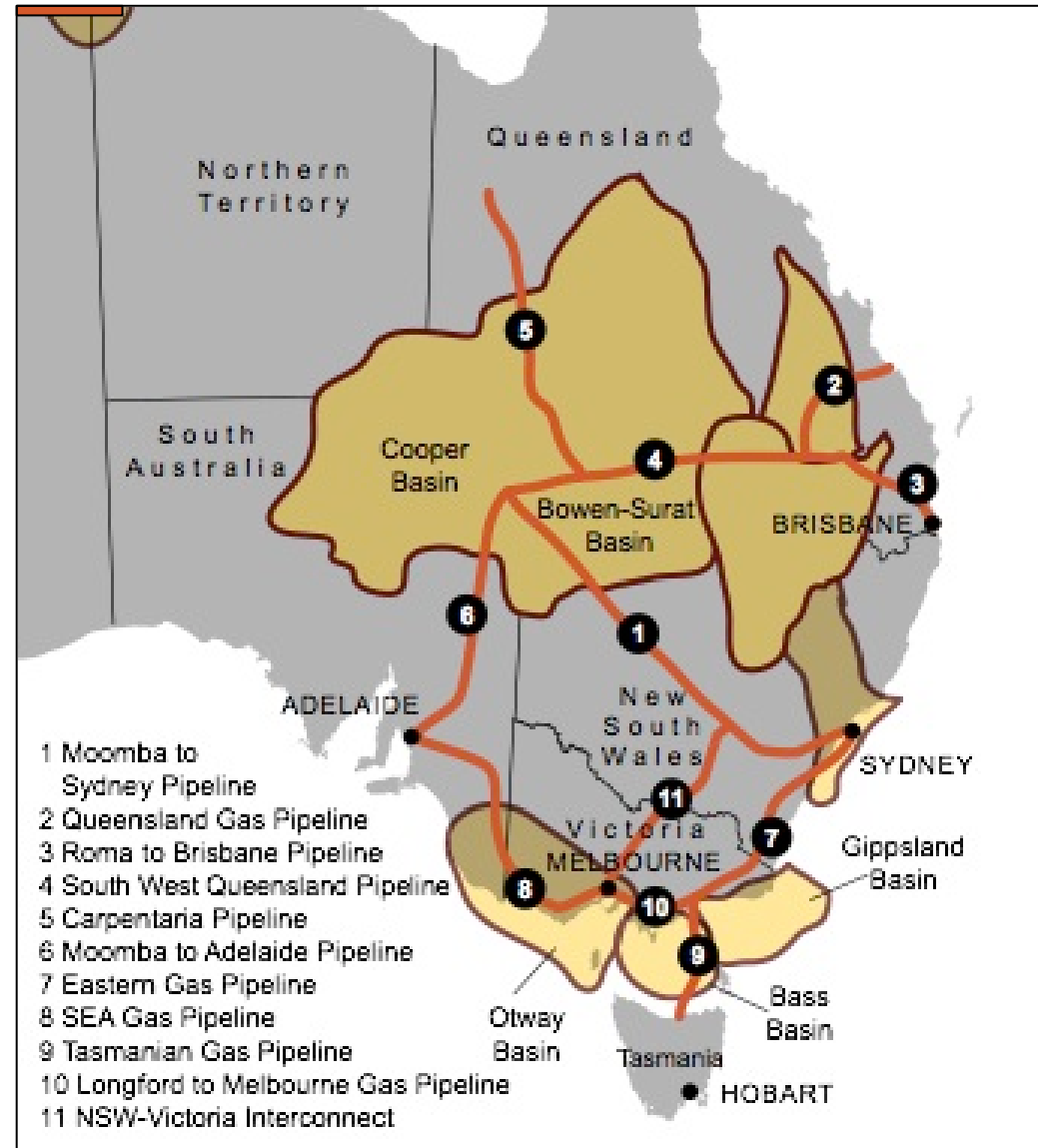
Leading to big consequences in particular circumstances

Australian households will see gas price increases



For some businesses the increase will be a very big deal

The east coast gas market is increasingly connected

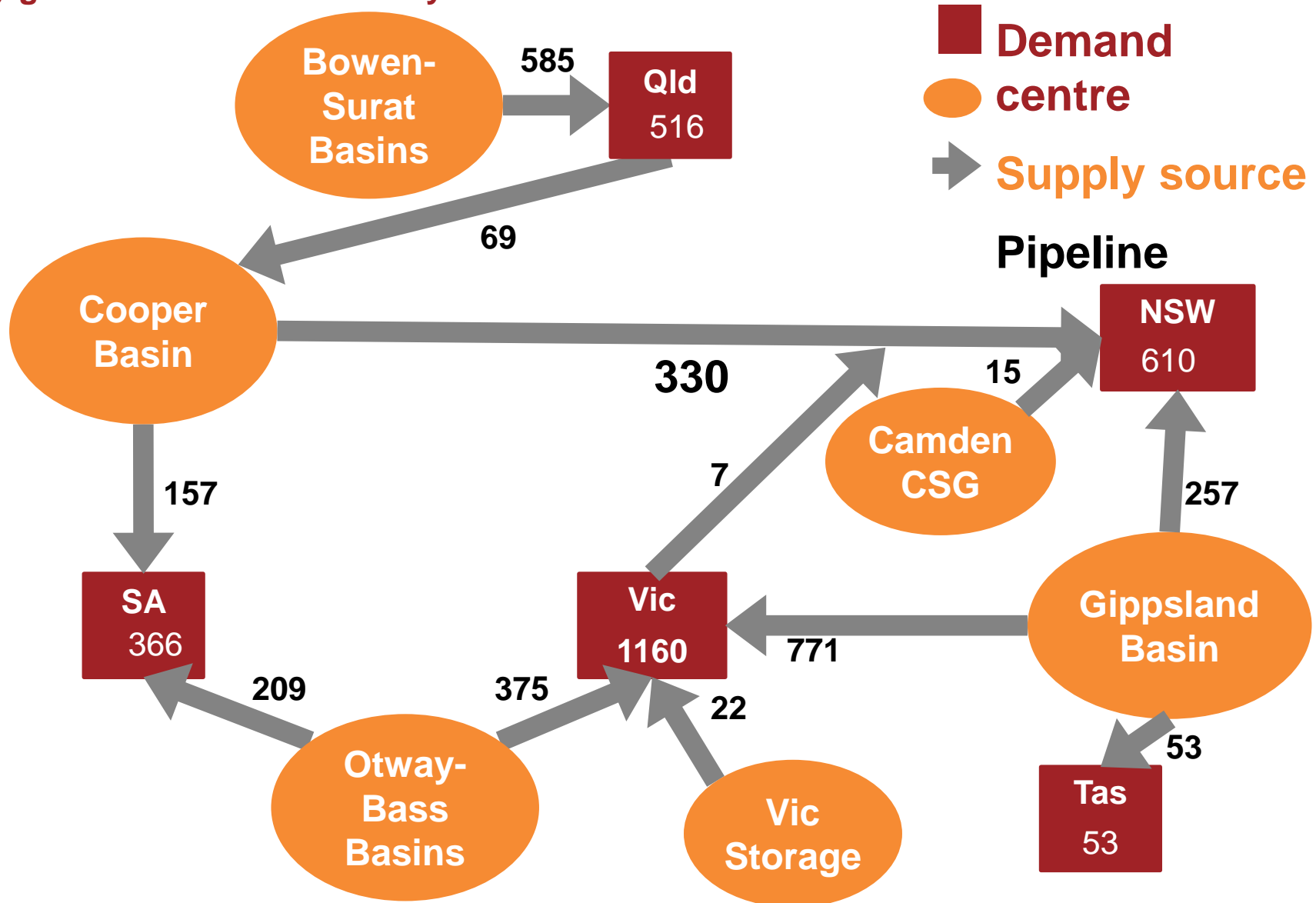


CSG in Queensland has grown over the last decade or so

CSG in New South Wales remains largely untapped

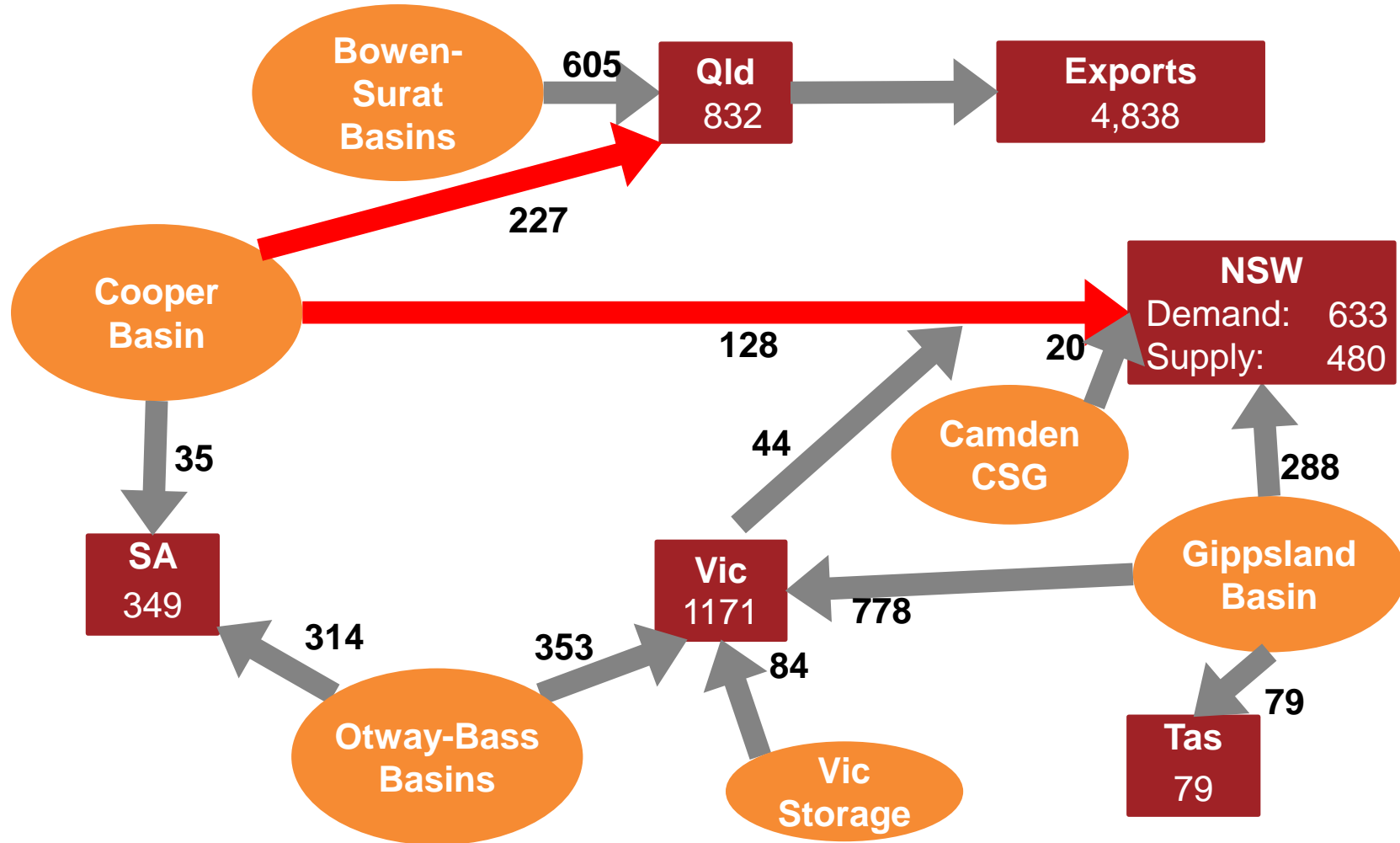
And has been in balance

Daily gas flows on a winter's day in 2011



And gas could be very tight within 3-5 years

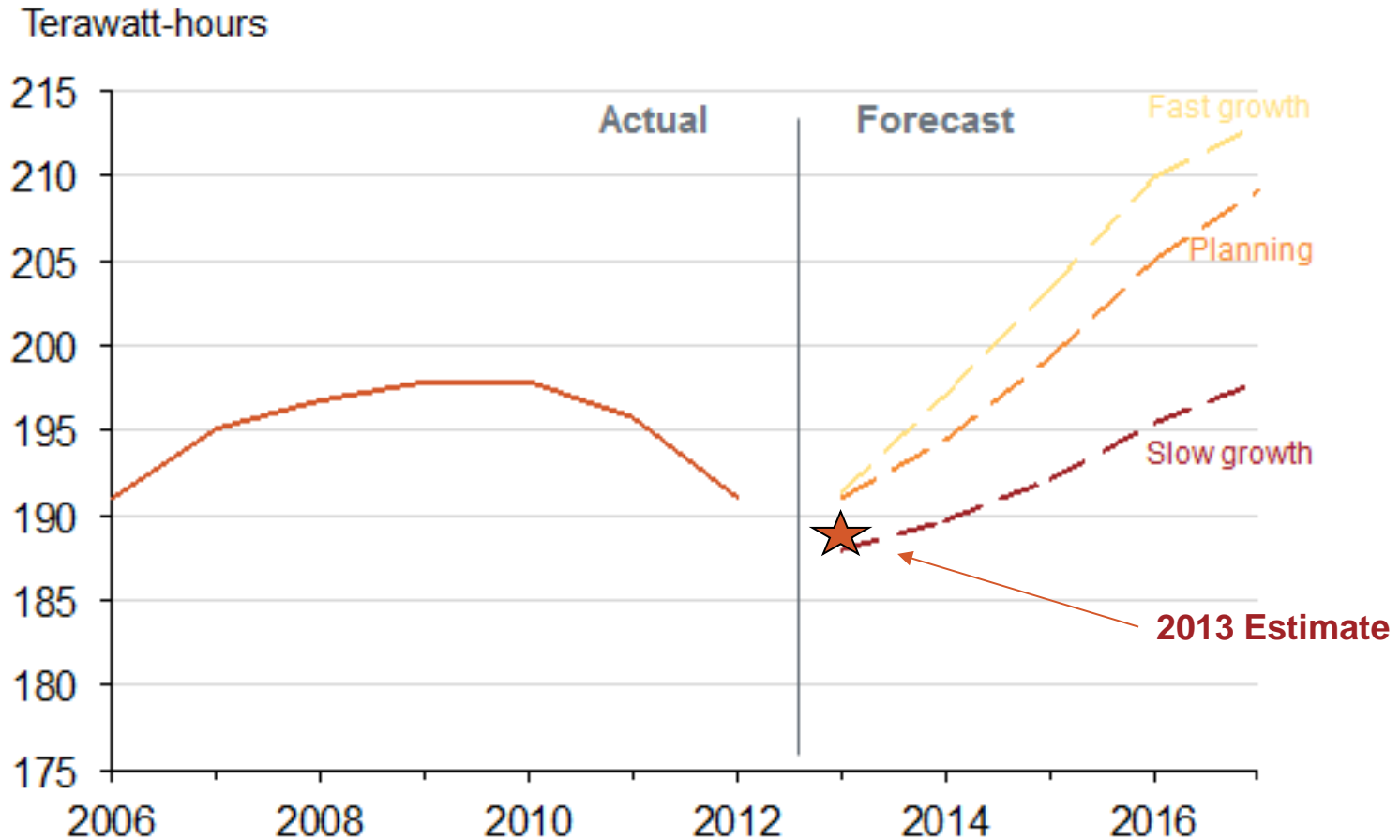
Daily gas flows on a winter's day in 2016



unless commercial solutions are reached

Carbon pricing was to favour a dash for gas, but demand has fallen

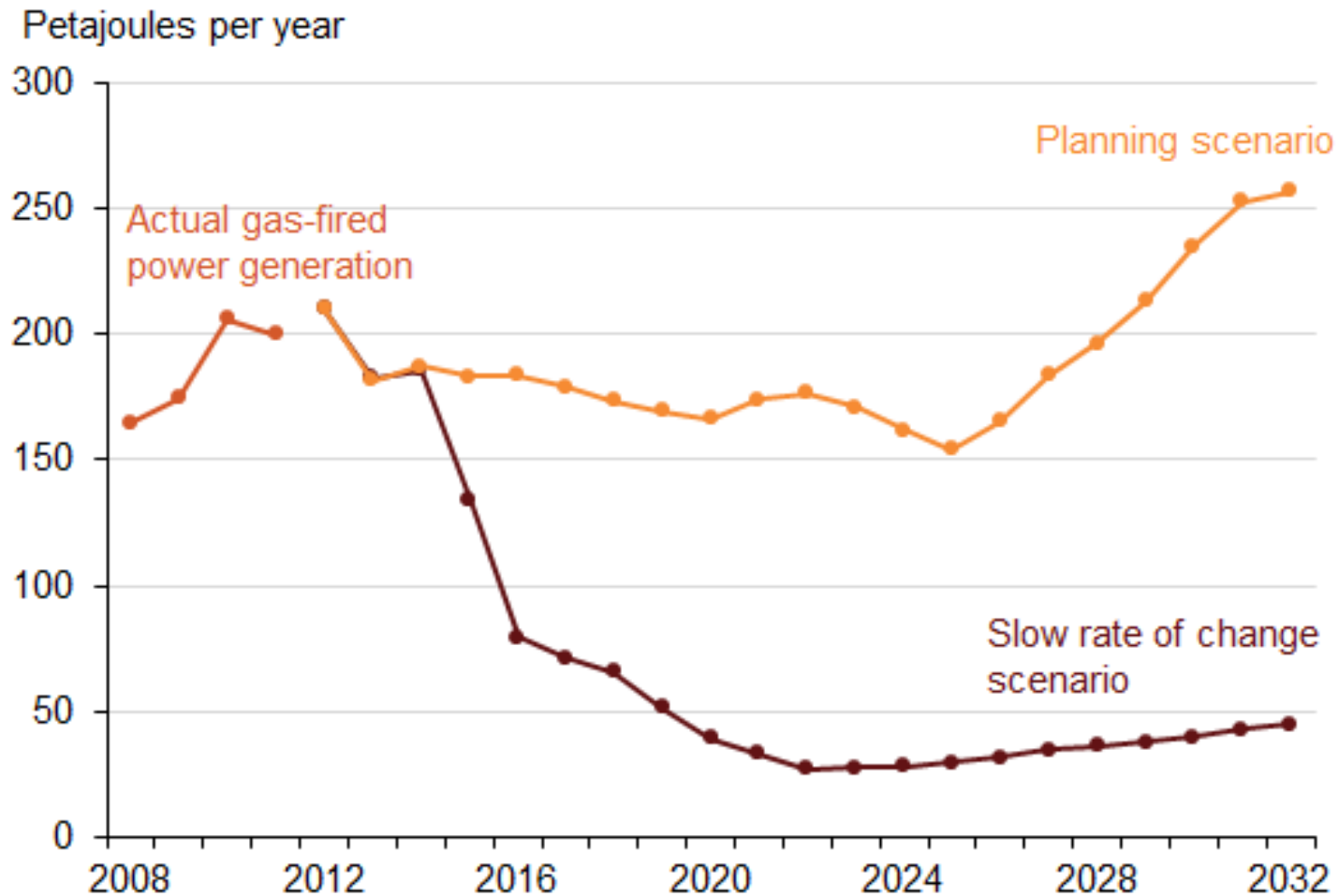
NEM electricity demand



Source: AEMO (2012, 2013)

And the trend is continuing

So, the outlook for gas generation is very uncertain



Source: AEMO (2012)

a remarkably different position from most other countries

Conclusions

- More than \$160 billion investment is good for the economy. Governments should resist self-interested calls to cap prices or reserve gas for the domestic market.
- Unconventional gas brings conventional problems and an unusual alliance
- Governments must:
 - End the coal seam gas impasse in New South Wales.
 - Create a more transparent and efficient gas market including new trading hubs, a published gas price index pipeline capacity trading and elimination of joint marketing.
- Industry must get the gas to market and commercial deals should get done.
- There is no shortage of gas
 - Global resources are more than 200 years of supply – great news for energy users, possibly very bad long-term news for climate change.
 - Australia's proven and probable reserves are enough for 70 years at current production. Coal seam gas and shale gas could quadruple that coverage

For Australia, getting gas right presents very big challenges



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