

DOMESTIC GAS SUPPLY OUTLOOK

Western Australia has been producing natural gas since 1971. Currently, domestic gas (domgas) consumption is around 1000 TJ/d

Western Australia’s gas market

- Western Australia is the largest domestic consumer in Australia, accounting for 38% of national gas consumption
- Western Australia is very reliant on gas as a fuel for electricity generation
- Almost half of the domestic gas is used for electricity generation. Industrial and mining use accounts for 51%, with residential and other uses 4%
- There are a limited number of gas pipelines and interconnections with little surplus transportation capacity
- Gas-powered generation dominates Western Australia’s electricity generation at 55%. In contrast, 63% of the nation’s electricity was generated by coal

Domestic gas reservation in Western Australia

- The Government’s domestic gas policy requires liquid natural gas (LNG) exporters to make gas, equivalent of 15% of their LNG exports, available to the domestic market
- It does not force producers to supply gas if the market is well supplied for a time. Unsold gas is reserved for when market conditions change
- The Department of Jobs, Tourism, Science and Innovation (JTSI) supports the Minister for State Development in administering the domestic gas policy
- The Department of Mines, Industry Regulation and Safety (DMIRS) provides information and advice to JTSI on matters relating to gas reserves and resources, particularly in relation to adequacy of the reserves and resources for domestic gas supply

Current long-term domestic gas arrangements

Project/ Operator	LNG capacity (Mtpa)	Domestic gas obligation (PJ)	Indicative commitment (TJ/d)
Gorgon Chevron	15.6	2000	300 (split into two 150 TJ/d tranches)
Pluto Woodside	4.9	450	115
Wheatstone Chevron	8.9	1600	200
North West Shelf * Woodside	16.9	660	90

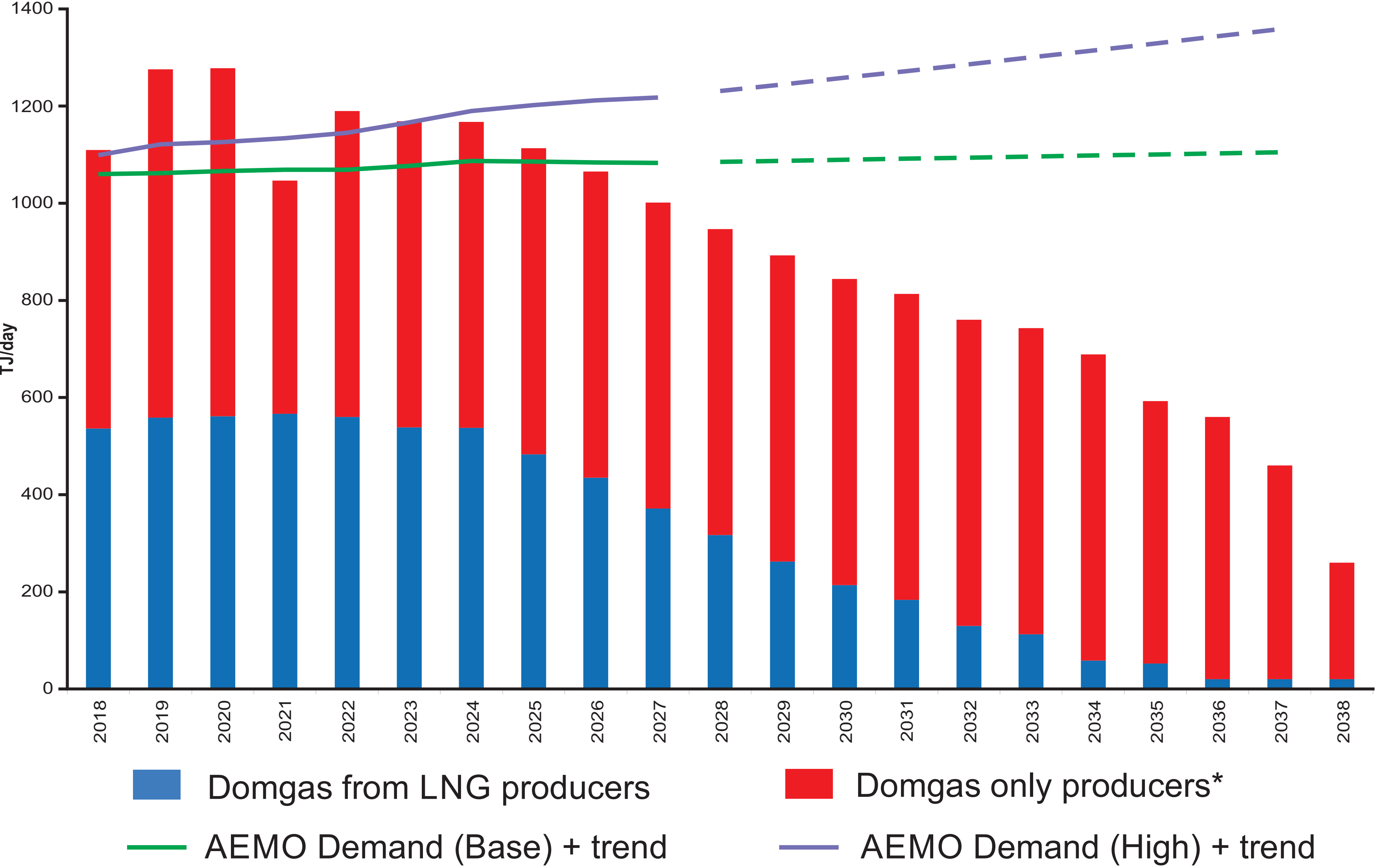
* Excludes domestic gas to be supplied by the North West Shelf under contracts prior to the 2015 agreement and third-party tolling

Domestic gas processing facilities

Domestic gas processing facility		Nameplate capacity (TJ/d)	Historical peak production (TJ/d)	Operator	Basin
Domestic gas only facility	Beharra Springs	19.6	16.3	Beach	Perth
	Devil Creek	220	146.5	Santos	Carnarvon
	Dongara	7	2.0	AWE	Perth
	Xyris	10	10	AWE	Perth
	Varanus Island	360	274.4	Santos	Carnarvon
	Macedon	220	220.7	BHP	Carnarvon
	Red Gully	10	8.6	Energy Resources	Perth
LNG linked	Karratha Gas Plant (NWS)	630	604.6	Woodside	Carnarvon
	Gorgon*	300	181.9	Chevron	Carnarvon
	Wheatstone	200	N/A	Chevron	Carnarvon
Total		1976.6	1465.0		

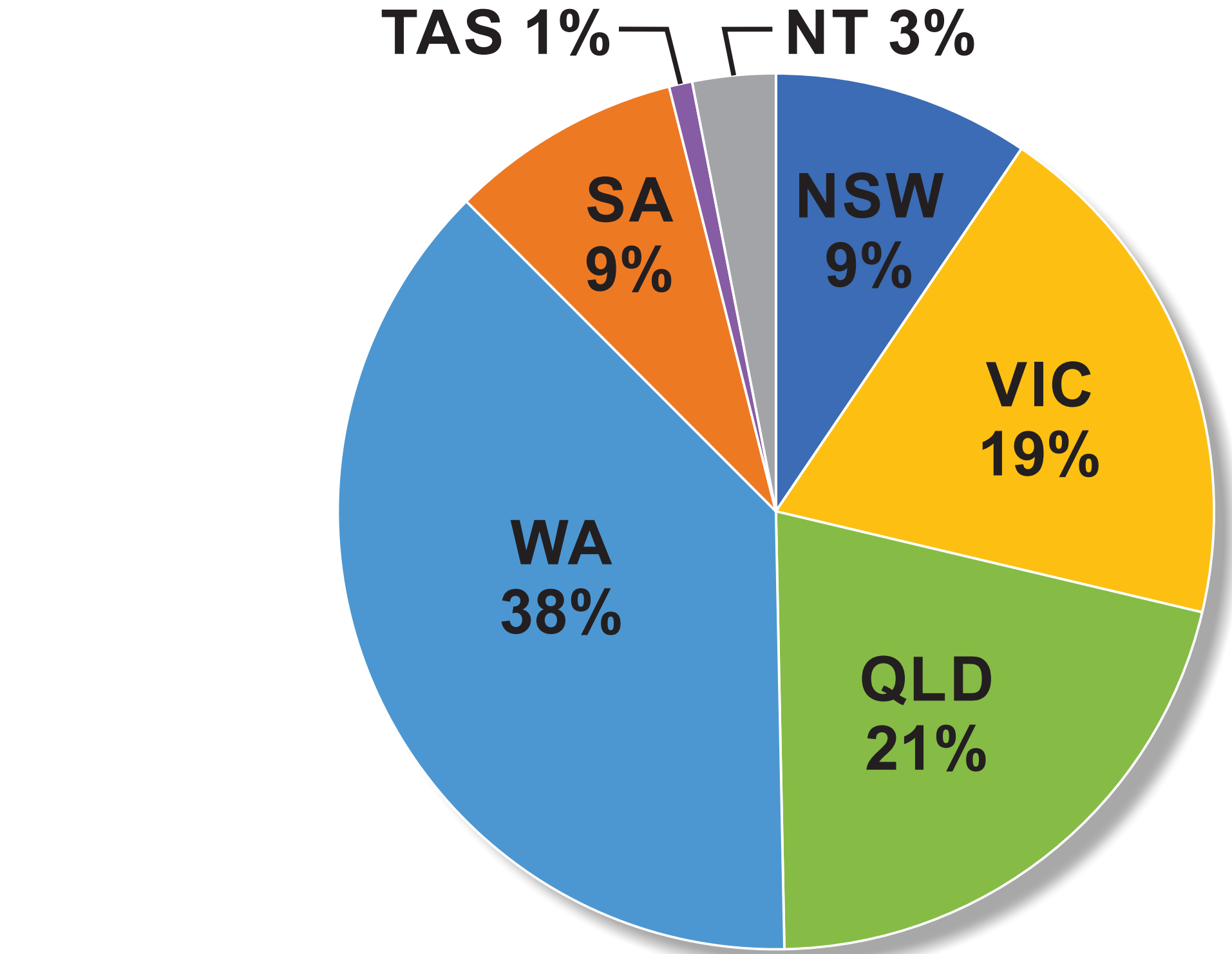
* Gorgon domestic gas is being marketed in two 150TJ/d tranches. The first tranche has been contracted and is being supplied. Supply from the second tranche is expected by 2021

Domestic gas supply and demand forecast



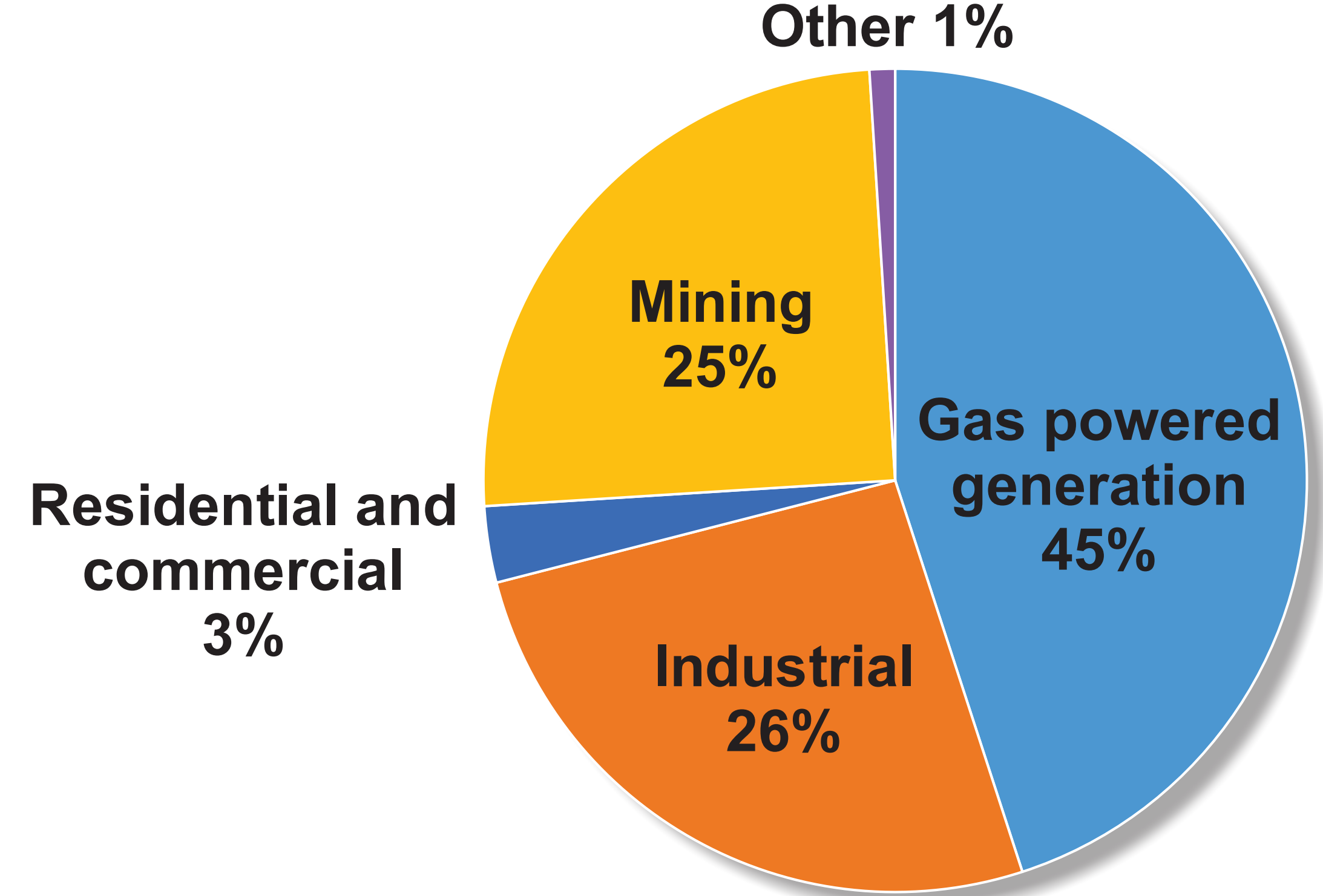
* Includes Waitsia Stage 1 expansion, but excludes Waitsia Stage 2 expansion
AEMO, Australian Energy Market Operator; domgas, domestic gas

Gas consumption in Australia (2016–17)



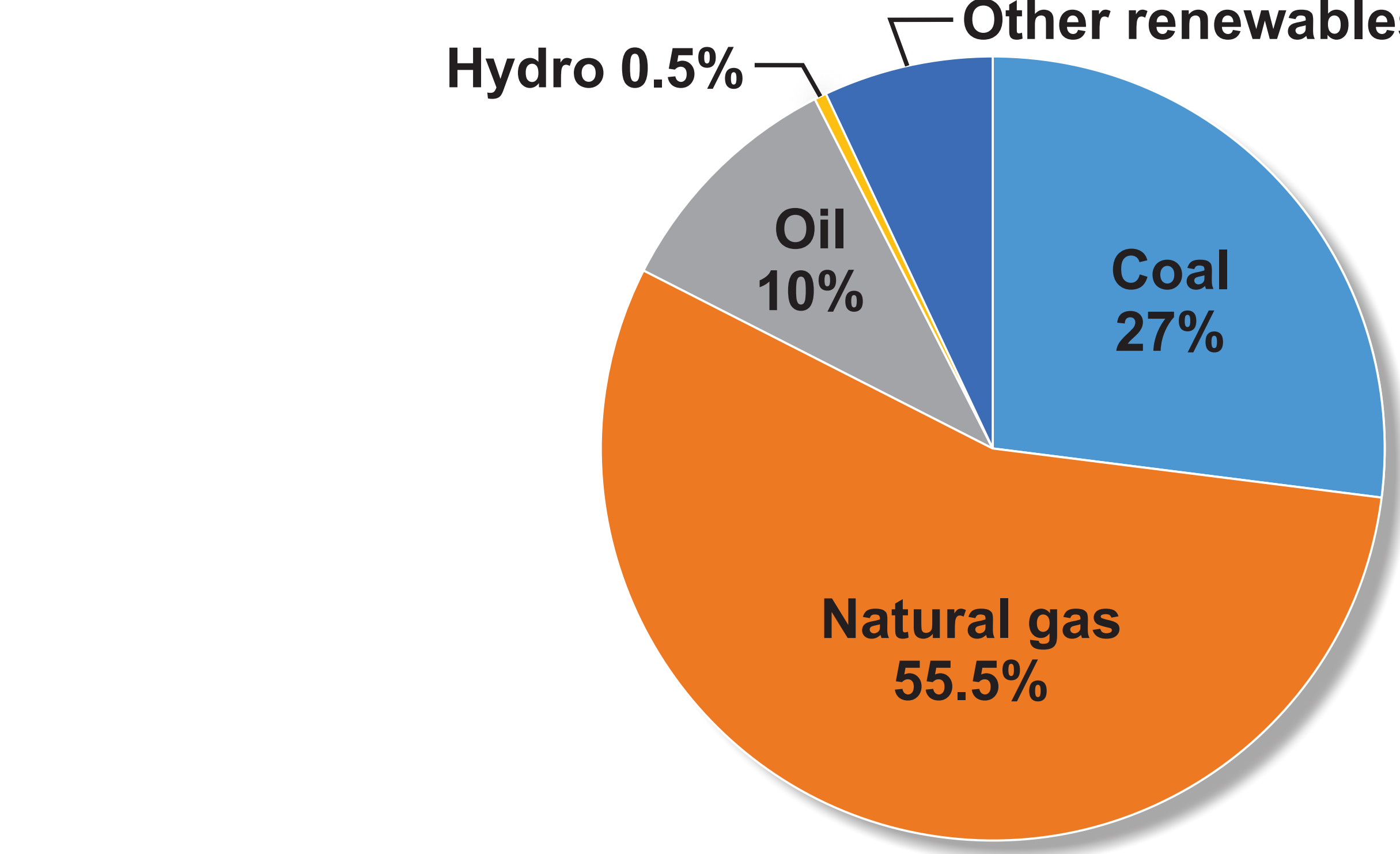
Source: Australian Energy Update, 2018, Department of the Environment and Energy

Gas consumption in Western Australia (2016–17)



Source: Australian Energy Market Operator, 2018

Western Australia’s electricity generation fuel mix (2017)



Source: Australian Energy Update, 2018, Department of the Environment and Energy

Domestic gas pipelines and nameplate capacity



Abbreviations: DBNGP, Dampier to Bunbury Natural Gas Pipeline; FRGP, Fortescue River Gas Pipeline; GGP, Goldfields Gas Pipeline; KEP, Kambalda to Esperance Pipeline; KKP, Kalgoorlie to Kambalda Pipeline; MWP, Midwest Pipeline; PEP, Pilbara Energy Pipeline; PGP, Parmelia Gas Pipeline; TGP, Telfer Gas Pipeline

Summary

- The Western Australia Domestic Gas Policy aims to secure the State's long-term energy needs by ensuring that LNG producers also make gas available to the domestic gas market
- Australian Energy Market Operator expects growth in Western Australia’s gas demand to remain relatively low over the next decade
- Existing supply sources are likely sufficient to keep the domestic market adequately supplied until mid-2020s, after which new resources will be required
- Additional gas supply could come from new obligations under the State's Domestic Gas Policy for LNG producers, such as Scarborough and Browse, tolling gas through the North West Shelf or Pluto LNG facilities, the implementation of Pluto LNG project's full domestic commitments, or development of additional reserves by domestic only producers
- Petroleum exploration activities are at a very low level. Investment in exploration and development of new resources need to occur in time to ensure gas demand is met