

Western Australia's natural gas industry



Domestic gas

- WA has an estimated 443 trillion cubic feet of gas, enough to meet its current domestic and export needs for 113 years.¹
- Gas is the dominant fuel source for electricity generation in the South West Interconnected System (43%).¹
- More than 737,000 WA homes and small businesses use gas.¹
- Gas is increasingly powering WA's resources sector: 32% of annual domestic gas production is used in minerals processing and 23% is used in mining.¹

¹ AEMO (2017), *WA Gas Statement of Opportunities*.



Economic and community benefits

- WA gas producers and associated contractors directly employ about 20,000 Western Australians.³
- The gas industry generated almost \$900 million in royalties and taxes for the WA Government in 2014–15 and more than \$1.5 billion in Commonwealth Government revenue.³
- Local companies benefited from more than \$8 billion worth of contracts for goods and services in 2014–15.³
- Gas companies make about \$12 million in direct community contributions every year.³

³ APPEA (2016), *Member survey*.



LNG exports

- WA is one of the world's biggest exporters of liquefied natural gas (LNG), which is one of the world's fastest growing sources of energy.
- WA LNG exports totalled 21 million tonnes in 2015–16 and are expected to more than double by 2020.²
- The LNG industry is WA's second most valuable export industry (\$14.5 billion annually) behind iron ore.²
- New LNG projects include Gorgon, Australia's biggest resource project, Wheatstone and Prelude, the first floating LNG project.

² WADMP (2016), *2015–16 Major Commodities Resources*.



Environmental benefits

- Emissions from natural gas-fired generation are up to 50% lower than emissions from coal. Unlike coal, use of gas produces almost no particulate matter.⁴
- The Climate Change Authority (CCA) says replacing coal with gas and renewables is the most efficient way to reduce emissions from electricity generation without jeopardising reliability.⁵
- The CCA has stated that output from gas-fired generation must at least double, and possibly triple, if Australia is to reach its 2030 emissions target.⁵
- Other nations are increasingly turning to gas to help reduce emissions. The International Energy Agency (IEA) forecasts a 50% increase in global gas demand over the next 25 years.⁶

⁴ ACOLA (2013), *Engineering Energy: Unconventional Gas Production*.

⁵ CCA (2016), *Research report: Policy options for Australia's electricity supply sector*.

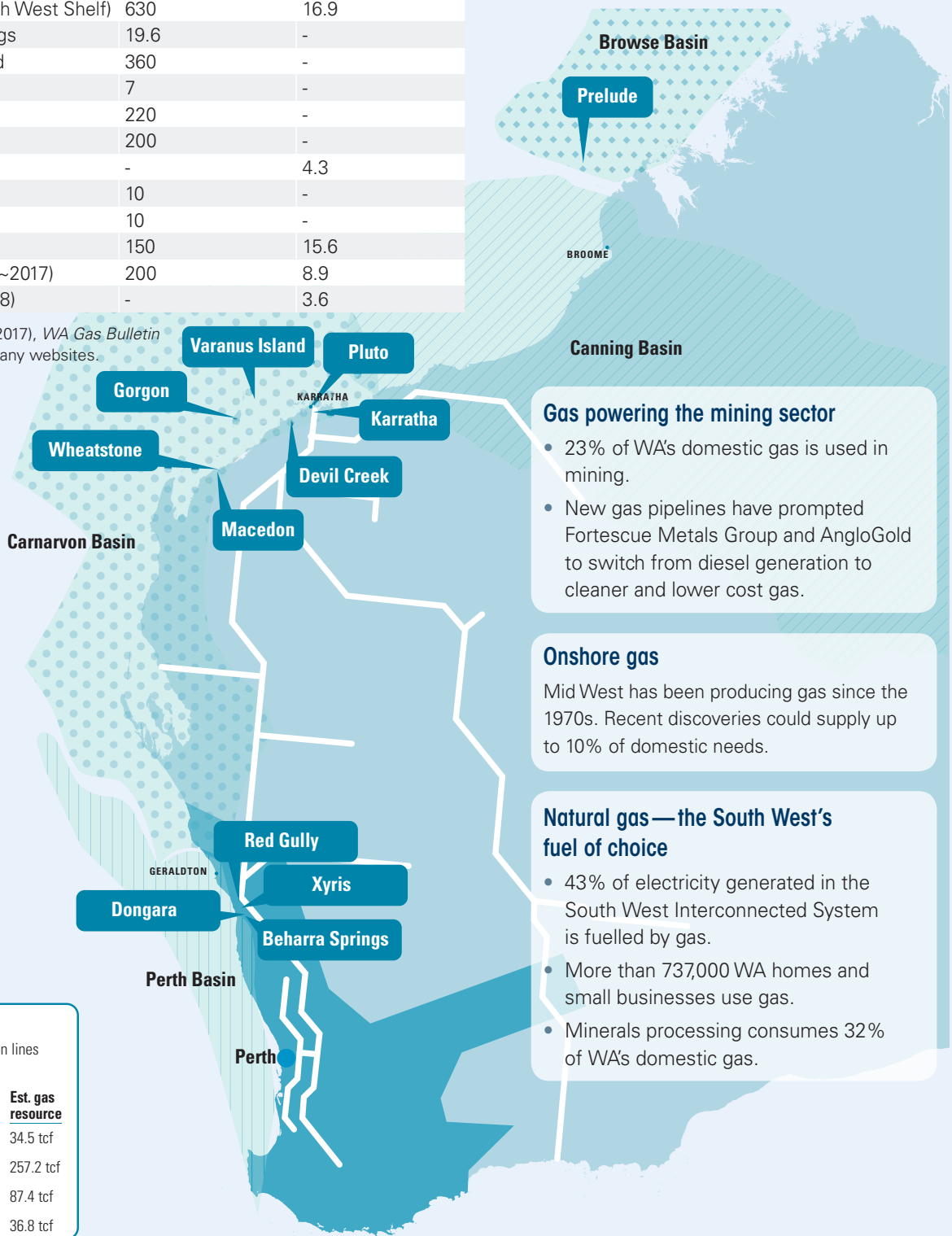
⁶ IEA (2016), *World Energy Outlook*.



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Gas production facility	Capacity	
	Domestic (TJ per day)	LNG export (MT p.a.)
Karratha (North West Shelf)	630	16.9
Beharra Springs	19.6	-
Varanus Island	360	-
Dongara	7	-
Devil Creek	220	-
Macedon	200	-
Pluto	-	4.3
Red Gully	10	-
Xyris	10	-
Gorgon	150	15.6
Wheatstone (~2017)	200	8.9
Prelude (~2018)	-	3.6

Source: AEMO (2017), *WA Gas Bulletin Board*; and company websites.



Gas powering the mining sector

- 23% of WA's domestic gas is used in mining.
- New gas pipelines have prompted Fortescue Metals Group and AngloGold to switch from diesel generation to cleaner and lower cost gas.

Onshore gas

Mid West has been producing gas since the 1970s. Recent discoveries could supply up to 10% of domestic needs.

Natural gas—the South West's fuel of choice

- 43% of electricity generated in the South West Interconnected System is fuelled by gas.
- More than 737,000 WA homes and small businesses use gas.
- Minerals processing consumes 32% of WA's domestic gas.

for more information please visit www.appea.com.au

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