

VISUAL OVERVIEW

Western Australia's gas market outlook

December 2021

Summary information for participants, policy-makers, and consumers from the 2021 Western Australia Gas Statement of Opportunities (WA GSOO).

WHAT IS THE WA GSOO?

A report that provides a 10-year forecast for gas supply and demand in Western Australia. It gives the industry and government information that helps them make operational and investment decisions. The WA GSOO focuses on gas in WA's domestic markets, used by industry and households across the state.

10% of the gas produced in WA is consumed domestically, about 3% of that domestic consumption being residential use. Most of the gas is exported as liquefied natural gas (LNG).

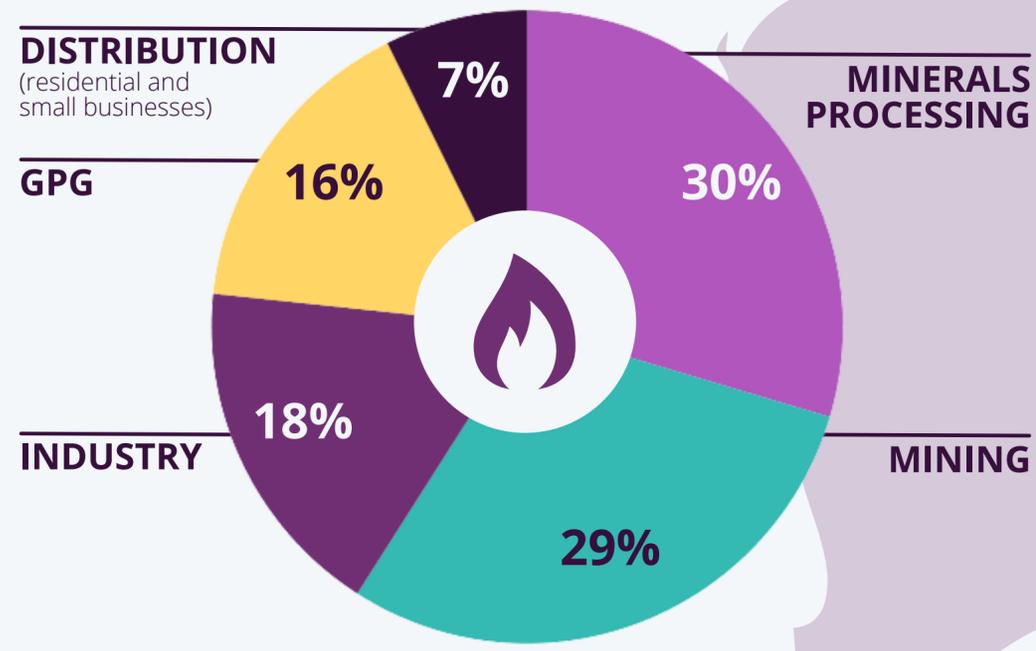
HOW IS GAS USED IN Western Australia

WA consumers and industry use gas in very different ways. Here's how gas will be used on our west coast in 2022.

10% Domestic gas
90% LNG

Did you know
Australia was the largest exporter of LNG in 2020, supplying 22% of the global market. **WA exports more natural gas than any other state**, accounting for 57% of Australia's LNG exports in 2020!

<p>INPUTS</p>	<p>AEMO's gas demand forecasts – information from gas users, projections of likely growth in the mining and minerals processing sectors, which consume over 60% of gas used in WA, and forecasts for gas-powered generation of electricity in the state. AEMO's supply forecasts – information from market participants about reserves, future development and production, and projections for future production costs and gas prices). Data on pipeline capacities.</p>
<p>INSIGHTS</p>	<p>Forecast changes in domestic gas demand and gas that could be supplied to the domestic market, and where any gaps may need to be met.</p>
<p>AUDIENCE</p>	<p>Business and residential consumers of gas, gas suppliers, operators, investors, federal and state governments</p>



DEMAND IS EXPECTED TO grow...slightly

In the 10 years to 2031, AEMO forecasts that **domestic gas demand will grow around 0.8%** each year on average. The main growth is expected to come from the mining sector, including 15 resources projects that will start operating in this time. Mining projects use gas in processing and generating electricity.

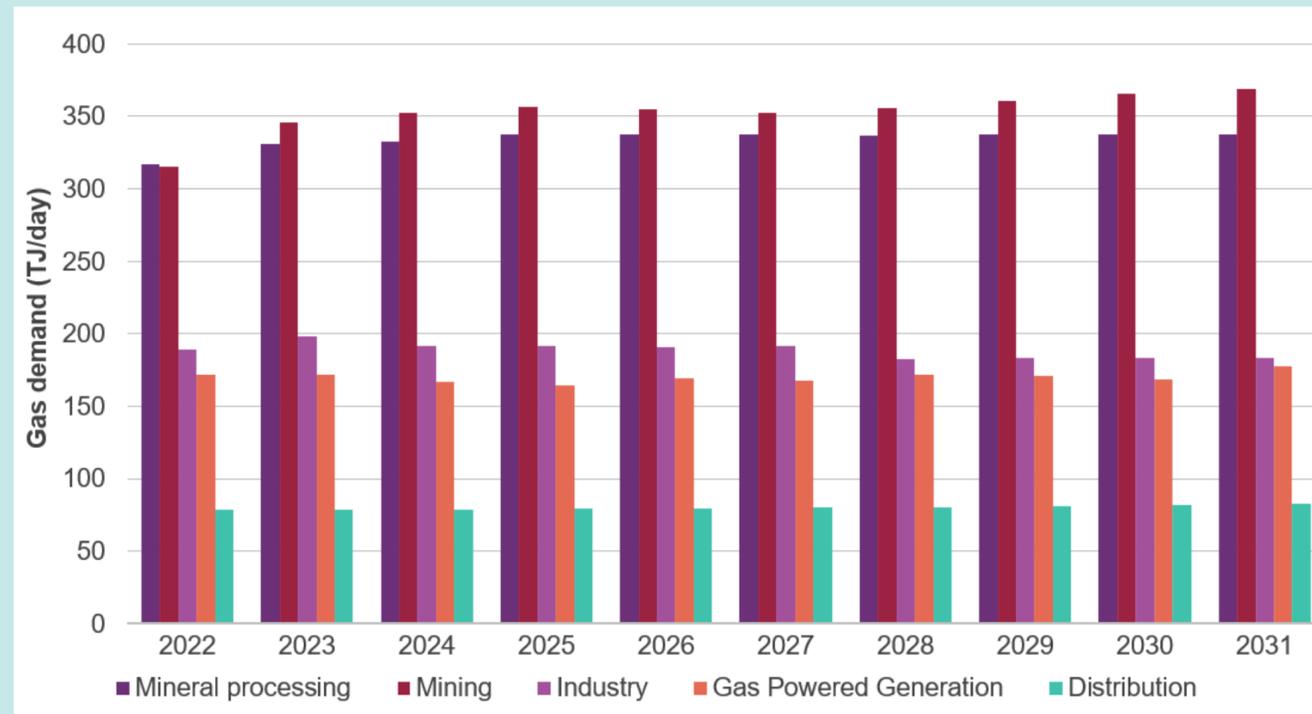
Some growth is also forecast from extra gas-powered electricity generation in WA grid called the South West Interconnected System (SWIS). While new renewable generation will connect, in the SWIS and in the mining sector, it is not expected to provide all the electricity needed as coal-fired generation retires.



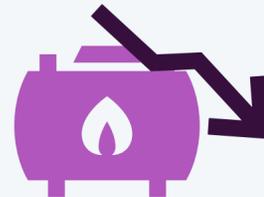
Much of the gas demand growth is driven by global demand for WA's commodities, in particular iron ore, lithium and nickel.



DOMESTIC GAS DEMAND FORECASTS BY USAGE CATEGORY, BASE SCENARIO, 2022 TO 2031



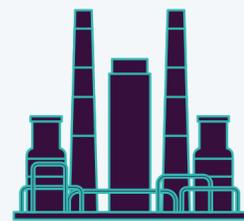
On the supply side, between now and 2031, AEMO forecasts:



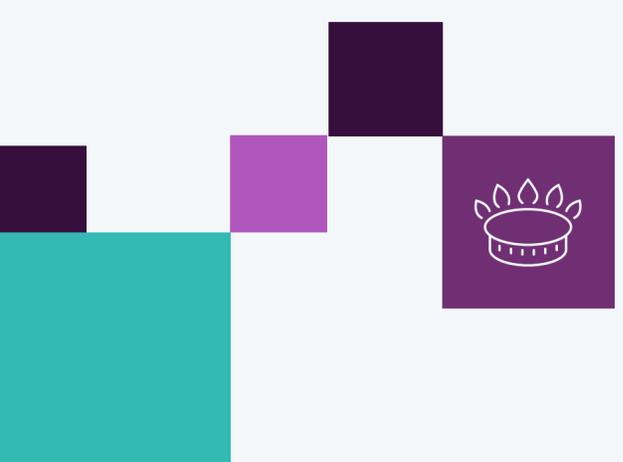
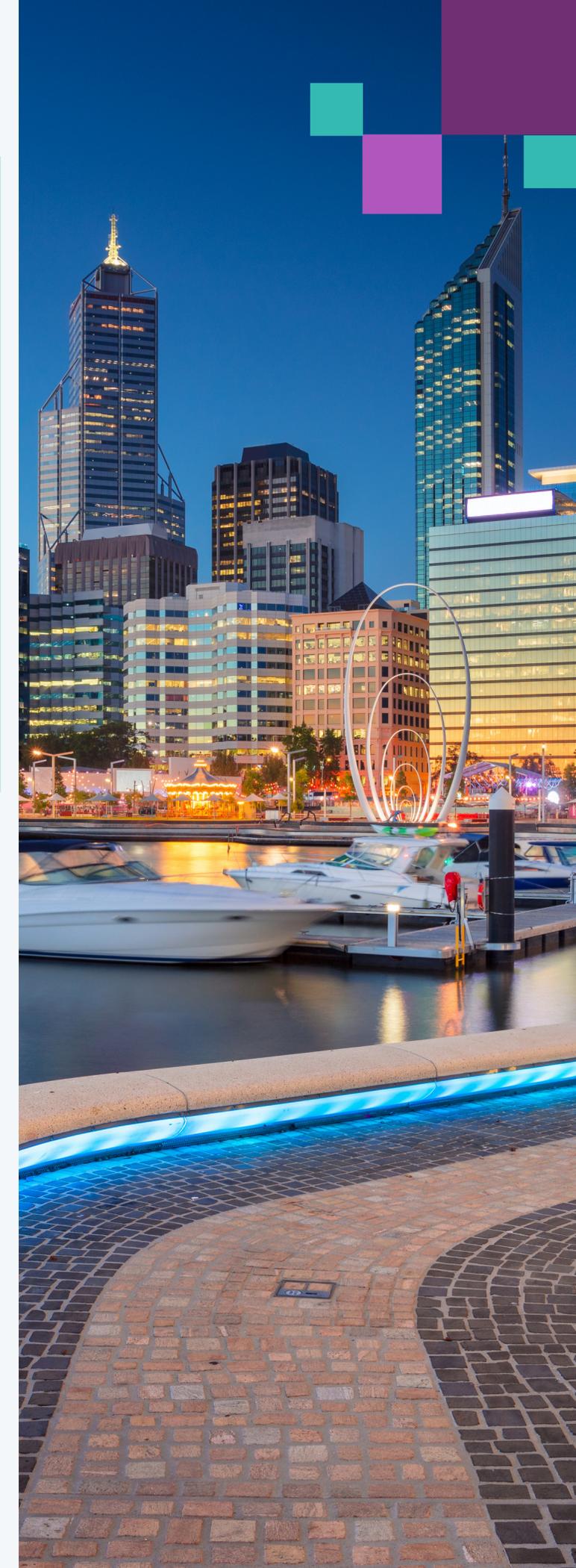
Production from existing sources declining over time



Lower supply than in the 2020 GSOO, because some domestic fields downgraded their reserves since then.



Four new projects lifting supply as they start operating (Spartan and West Erregulla in 2023, Scarborough in 2027, and Waitsia stage two domestic gas in 2029)



SUPPLY WILL MEET DEMAND IN THE WHOLE 10 YEARS, BUT

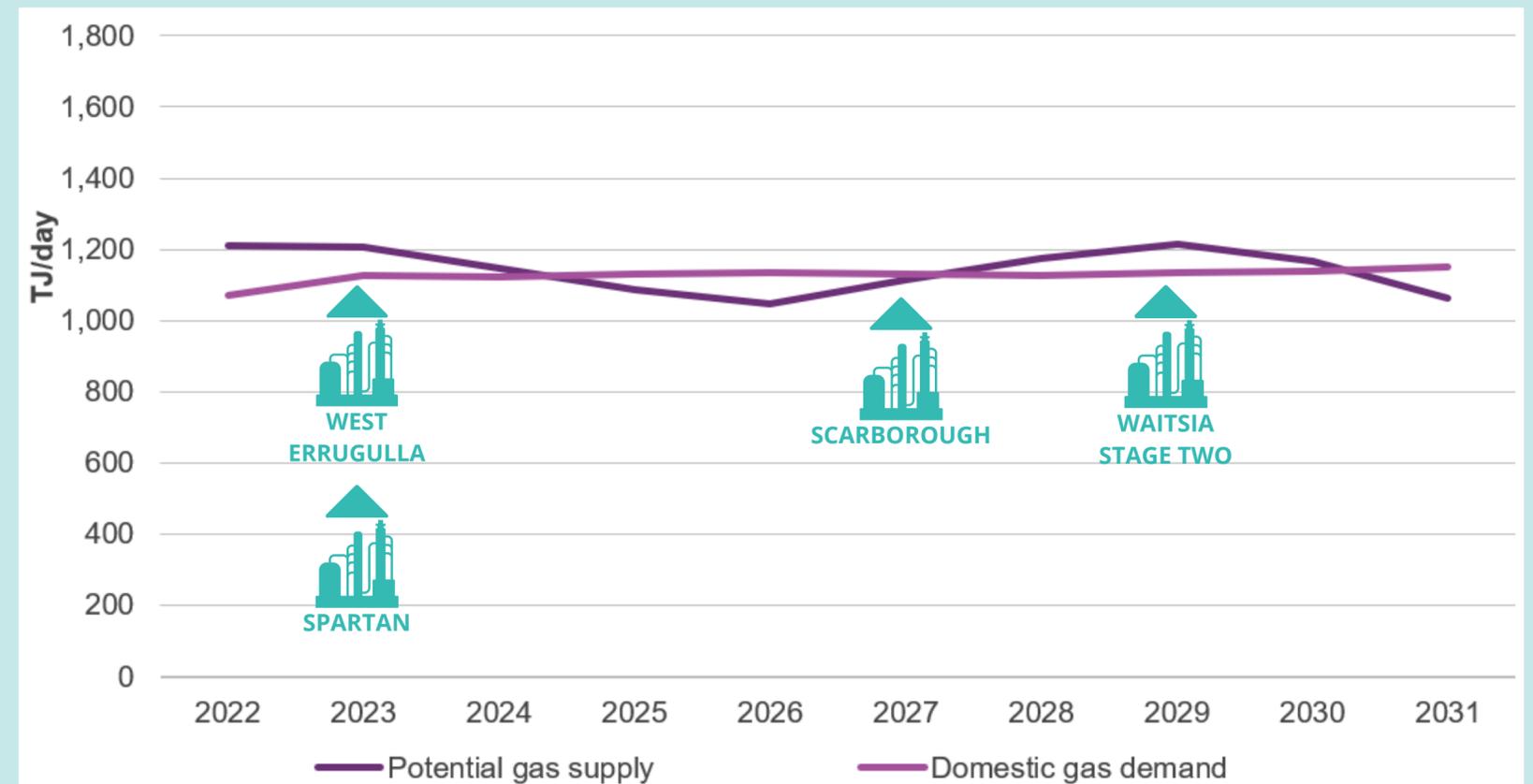
EXTRA GAS WILL BE NEEDED FROM 2025 TO 2027

AEMO's supply-demand assessment is that:

- The domestic market will be well supplied until 2024.
- Between 2025 and 2027, domestic demand for gas could exceed supply by 51 petajoules (PJ) in total over those three years, at rates of up to 85 terajoules (TJ) a day in 2026 (there are different options that could make up that gap). For context, the largest forecast gap in 2026 represents about 7% of the total forecast daily demand that year. There was no gap at this time in last year's GSOO, but expected supply in the medium term is now lower than it was then.
- From 2027, after the Scarborough project is forecast to start, until at least 2030, supply is expected to again more than meet demand, although another gap may develop in 2031.

While the GSOO can report on times when demand is forecast to exceed potential supply, it's important to know that Western Australia's businesses and homes will not experience a domestic shortfall. Various options are available to increase supply to meet demand.

BASE SCENARIO, WA GAS MARKET BALANCE 2022 TO 2031



MEETING THE FORECAST supply gap

Options to address the supply gap from 2025 to 2027 include:



Taking more gas out of storage (the state has 78 PJ of gas storage capacity, with about 53 PJ currently stored, and this gas can be withdrawn at up to 210 TJ a day).



Getting extra supply from existing facilities that have spare production capacity and gas reserves.



Developing fields that are not yet included in the supply forecast.



New gas discoveries (drilling is continuing in both Perth and Carnarvon basins).

HYDROGEN



Hydrogen is emerging as an energy source, with commitments from government and industry. At this point its potential impact on domestic gas markets is limited, so AEMO has not incorporated hydrogen in this year's WA GSOO forecasts. AEMO will keep monitoring the progress of hydrogen initiatives and will report on new developments in future WA GSOOs and relevant forums.

