

WA GAS MARKET UPDATE

Supply

Demand

Commercial Trends

Other Developments

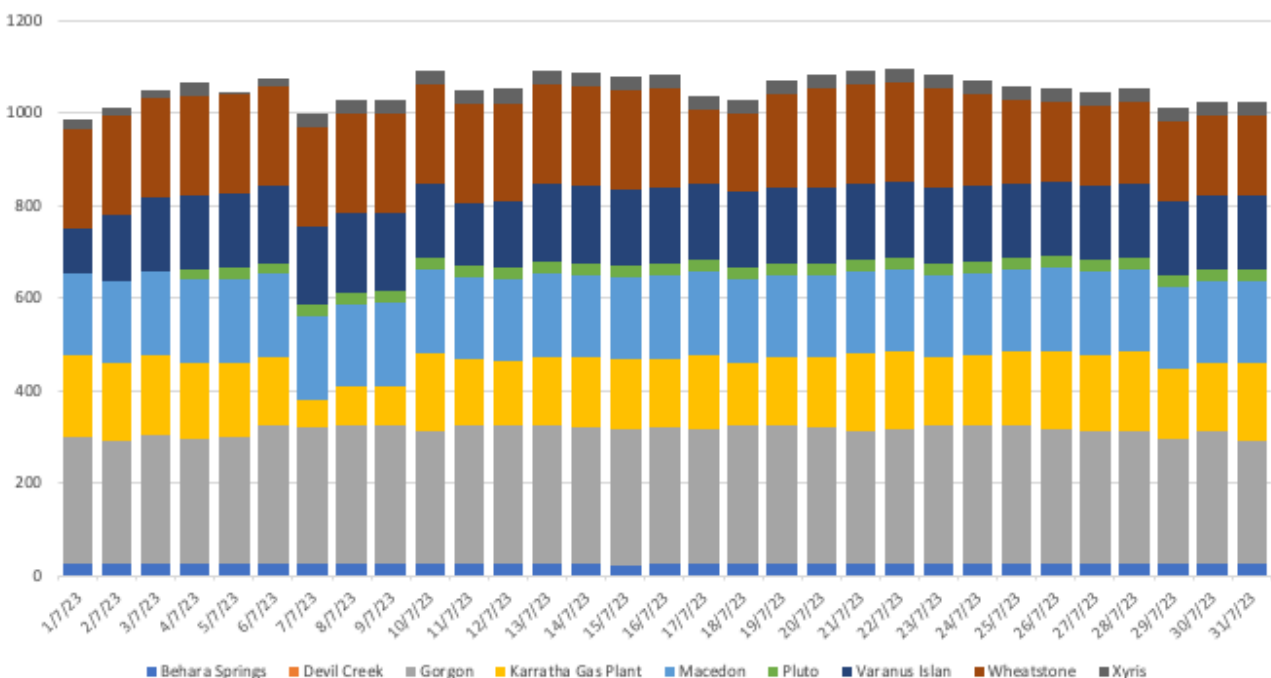
Govt. Gas Market Focus

The WA Government is focusing on the future capability of the gas market to support further mining (critical minerals) and industrial development. Concerns about gas supply have gained significant traction inside Government following major interruptions earlier in the year and a mid-year review of the future demand & supply balance indicating a future shortfall in supply. The Premier has appointed a parliamentary colleague with energy market experience to advise on options to increase supply. This will include considering recommendations from the current inquiry into the domestic gas policy as well as policy initiatives implemented on the east coast.

July Summary

- Gas production declined in July as Santos facilities struggled to meet customer demand
- Santos announced the permanent shut in of Devil Creek late 2023 / early 2024
- No progress on new supply in the Perth Basin and Canning Basin is now off the list as a pipeline gas supply option
- Lack of supply pushes Yara into a month long shutdown and reduces gas fired generation in the SWIS
- Prices are now well above \$10 / GJ for spot and pushing to \$14 / GJ for term contracts in the 2025/26 period (equivalent to LNG netback or export parity)

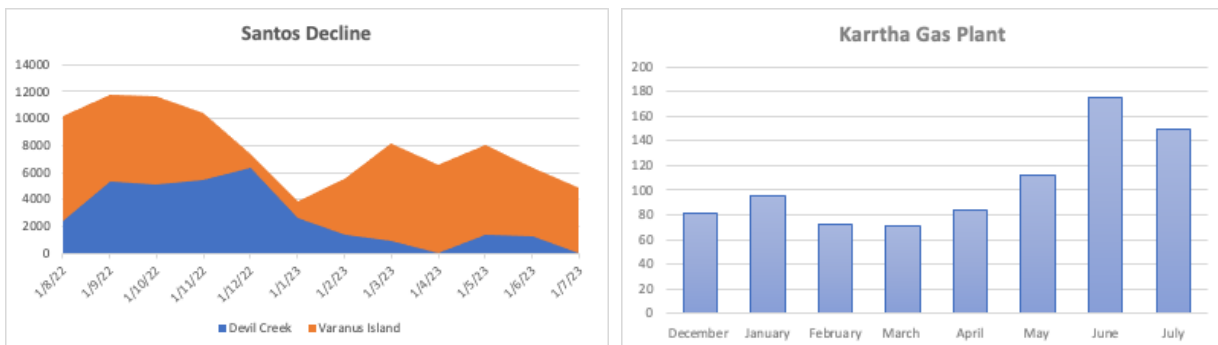
Gss Production July 2023



Gas Supply

EXISTING

Gas production declined in July, averaging 1,052 TJ/d. This reversed a trend of steady increases since March, and also included a net injection into storage of 484 TJ. The supply reduction was caused by lower production from Santos facilities and the Karratha Gas Plant (see below). Gorgon, Wheatstone, NWS and Pluto (including via the interconnect to the Karratha Gas Plant) now constitute over 60% of gas supply into the WA market. This underscores the importance of LNG projects to domestic gas supply, a point unlikely to be lost in submissions to the current Inquiry into the domestic gas policy.



Production from Santos facilities continues to decline at an alarming rate. The graph above shows the monthly output from Varanus Island and Devil Creek over the past 12 months. This decline, from combined 392 TJ/d in September 2022 to just 158 TJ/d in July 2023, is a 60% reduction in gas supply capability. Santos announced that Devil Creek will finally shut in permanently in late 2023 / early 2024. The bad news for Santos customers is set to continue into August with the market operator indicating a reduced capacity outlook for Varanus Island of just 133 TJ/d from 3/8 to 23/8 and Devil Creek at zero.

NEW

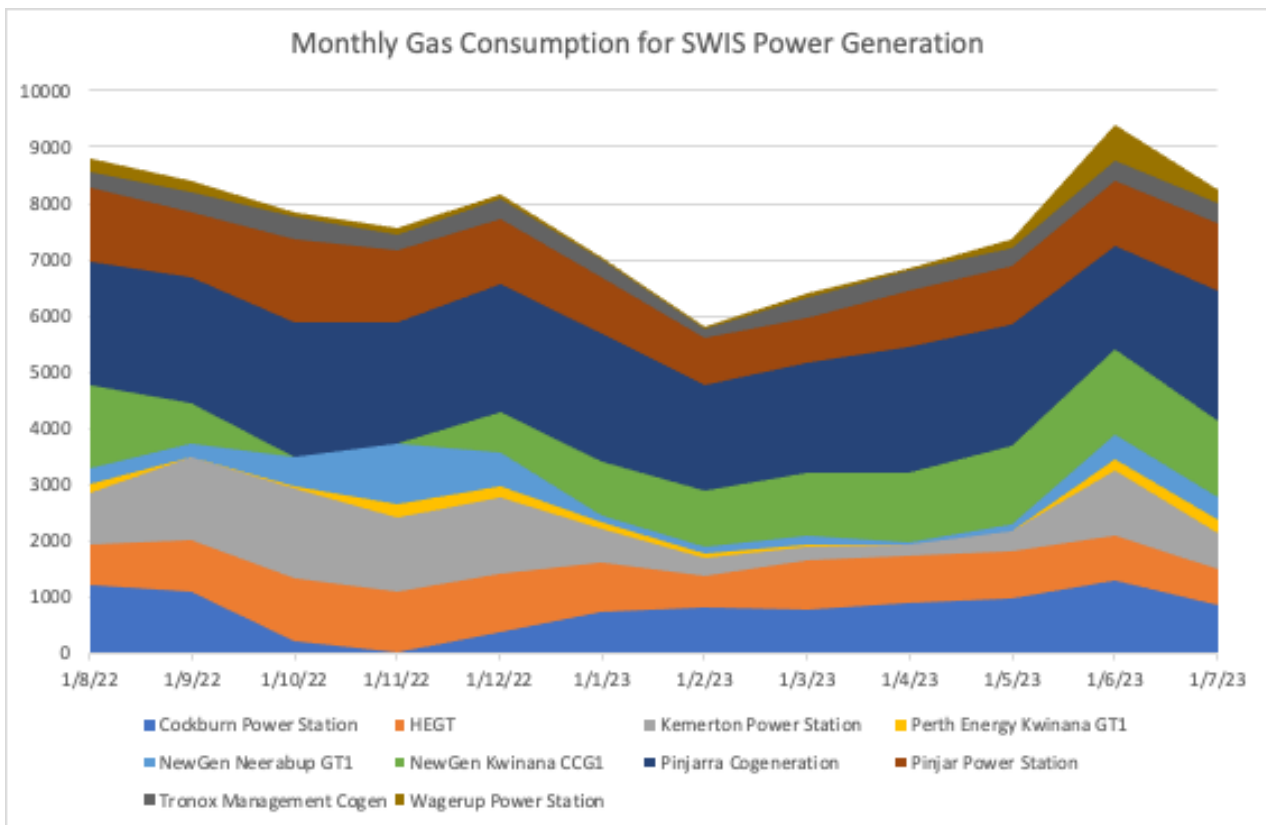
In the Perth Basin, Strike Energy announced a further delay to commissioning of the new Walyering gas processing facility, while at the same time as launching a takeover of its Joint Venture partner in the project, Talon Energy. Strike also indicated it was in negotiations with a major gas buyer to underpin development of a 40 TJ/d gas processing facility at South Erregula, while the appraisal drilling program for the West Erregula Project is now due to commence in Q2 2024. Elsewhere in the Perth Basin, Mineral Resources is drilling ahead with a further exploration well (Lockyer 3) after its significant gas discovery with the North Erregulla Deep-1 exploration well.

In the Canning Basin, Buru Energy released a development plan for the Rafael gas discovery that focuses on condensate recovery and gas to power, with a possible future blue methanol facility by decade end. Export of gas via a new pipeline to the NWS has been screened out as a possibility meaning the Canning Basin is unlikely to become a source of domestic gas supply. Woodside announced FID on Julimar- Brunello phase 3 which will supply gas to the Wheatstone LNG facility with associated domestic gas. The Scarborough Gas Project is 38% complete with the onshore construction phase now due to commence.

Gas Demand

Gas consumed in July averaged 1,047 TJ/d (down on June average of 1,141 TJ/d). By zone the major falls were in the metro zone (21 TJ/d or 5%) and the Dampier zone (48 TJ/d or 34%). In the Dampier zone, the major consumer is Yara fertilisers, usually averaging 80 TJ/d. Yara’s July average consumption was 5 TJ/d indicating an extended shutdown of the processing plant. Yara is a major customer of Santos indicating that shutdown planning has been coordinated to coincide with lower supply.

A different trend has emerged for gas consumption for power generation. The graph below indicates the significant impact of lower gas supply in February and March on gas generation facilities. The generation supply gap was filled by coal which had increased to 41% of the generation mix (total electricity supplied) by the end of March. Gas generation rebounded in June (47% of generation mix) as non-scheduled (renewable) generation decreased and generators were able to access additional gas supply (other than from Santos).



This data emphasises the current critical role of coal generation in supporting WEM generation where gas supply is interrupted or in short supply. This is not only a short term challenge but has emerged as a key risk to the State Government’s plans to retire Synergy coal plant by the end of the decade. The market operator has modelled that additional gas generation will be required to cover the exit of coal requiring up to a further 140 - 220 TJ/d of gas. On current supply and demand analysis, that gas does not exist, seemingly making it impossible to even start the process for new gas generation facilities to be planned, permitted and constructed in time to replace the withdrawal of the Synergy coal fleet. Government has become aware of this challenge and this will be included in the current focus on the WA Gas Market (see page 1).

Commercial Outcomes for Gas Contracting

Gas sellers remain bullish on gas prices with future contracts (+2 years) offered at gas prices up to \$14 / GJ. Nearer term gas contracts (+1 year) are being priced slightly lower and spot prices continue to climb through \$10 / GJ. The lack of future supply has reversed the trend of buyers going to market seeking gas supply offers from multiple sellers. One large gas seller (see below) recently contacted all major gas buyers seeking offers to purchase, with each buyer being asked to indicate the proposed price. This auction style process is a further indication of lack of supply with gas sellers using the market to leverage up the price.

Gas buyers are becoming increasingly concerned about future gas prices. Given the public debate about gas prices on the east coast and the price cap of \$12 / GJ for wholesale supply, gas sellers are unlikely to push domestic gas prices above export levels (LNG netback). The ACCC recently released a future forecast of LNG net back in June (below) that indicates this export parity level to be slowly declining over the next 5 years to around \$13 / GJ.

Date of quote	Year 1	Year 2	Year 3	Year 4	Year 5
28 July 2023	15.20	14.45	13.79	13.44	12.96

Chart 2: Forward medium-term LNG netback prices

Other Market Developments

APA announced the official opening of the Northern Goldfields Interconnect Pipeline (580 KM gas pipeline connecting the Dampier Bunbury Pipeline and the Goldfields Gas Pipeline through the midwest region on WA). The announcement confirmed general market knowledge that the pipeline is not fully contracted with the CEO indicating that ...”we are investing ahead of demand...”. This is certainly an unusual approach to infrastructure investment perhaps indicating a strategic play to protect existing business while growing APA’s capital base for future access arrangements on the Goldfields Gas Pipeline.

Woodside announced the sale of 80PJ of pipeline gas to WA customers for delivery from Q4 2023 until end 2025 - around 100 TJ/d. It also announced that the Perdaman Gas Supply Agreement had become unconditional (130 TJ/d for 20 years from 2026/2027). Woodside previously announced that the new domestic gas processing plant as part of the Scarborough development will have a capacity of 225 TJ/d. No doubt gas buyers will be interested in the remaining 95 TJ/d or capacity (with gas) available to supply the market from 2026/27.

AGIG is currently marketing an expansion of the Tubridgi Gas Storage facility. The current facility is sold out for firm capacity, and while “semi-firm” services are available, several customers have been disappointed in the security of service in times of tight gas supply (when storage is required the most). BrightSource understands that APA is also reviewing options to create a new underground storage facility in the Pilbara but is at very early stages of investigation.