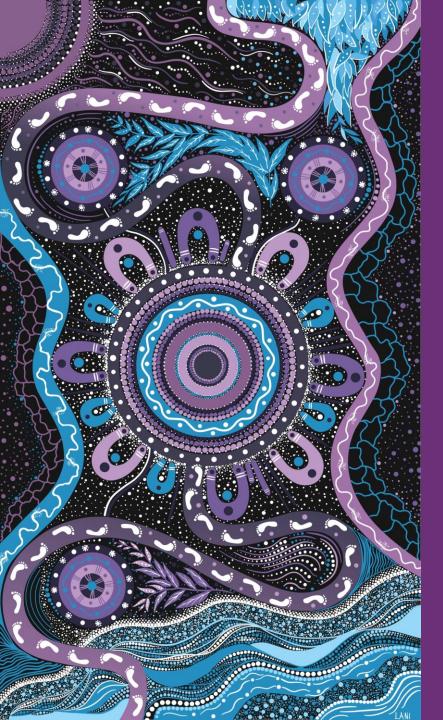


### 2024 Western Australia GSOO - Stakeholder Briefing

19 December 2024 AEMO





We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country, and hope that our work can benefit both people and Country.

#### 'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation – a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.





### Format of today

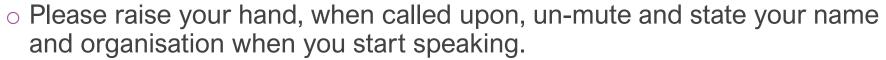




Presentation of the 2024 WA GSOO report.



 Following the presentation, we will have a Question & Answer session at the end.







 A recording and a copy of the presentation will be published on our forum webpage: <u>WA Gas Consultative Forum</u>



• We welcome feedback via WA.futuresystemdesign@aemo.com.au



#### Agenda

## The purpose of today is to present the key findings for the 2024 WA Gas Statement of Opportunities (WA GSOO)

- Introduction by Katie McKenzie, Group Manager WA System Design & Transformation
- Key findings by Alex Uchanski, Manager WA Future System Planning & Forecasting
  - Summary of findings
  - Gas consumption
  - Gas powered generation
  - Gas supply
  - Domestic gas supply adequacy
- Question & Answer session by Greg Sims, Senior Analyst

#### Introduction





- The 2024 WA GSOO presents AEMO's assessment of the WA domestic gas market for the 10year outlook period 2025 to 2034.
- It forecasts the adequacy of WA's domestic gas supplies in WA's domestic gas market for the *Progressive Change*, *Step Change* and *Green Energy Exports* scenarios, and an overview of gas infrastructure and emerging issues that affect Gas Market Participants and other stakeholders.
- For the purposes of this industry briefing, consistent with the previous two WA GCFs, the presentation slides will focus on the *Step Change* scenario (Expected case), which:
  - is consistent with the 2024 WEM ESOO\* and is underpinned by AEMO's 2023 IASR^;
  - is based on achieving a scale of energy transformation that supports Australia's contribution to limiting global temperature rise to below 2°C compared to preindustrial levels;
  - features a high level of consumer participation and significant investments in distributed energy resources (DER) to drive the decarbonisation of Australia's economy; and
  - forecasts growth in electrification across the business and residential sectors.
- A copy of the report is available on <u>AEMO's website</u>.

<sup>\*</sup> Wholesale Electricity Market (WEM) Electricity Statement of Opportunities (ESOO). Report is available on <u>AEMO's website</u>.





Stakeholder consultation throughout 2024 has been critical in the development of the 2024 WA GSOO.

Formal information requests to Gas Market Participants in July 2024

Gas Consultative Forums – October 2024 and November 2024

#### **Response to WA Government Domestic Gas Inquiry**

- 1. Accounted for WA Government's policy response LNG projects were assumed to make at least 15% of supply available to the domestic market, and assumed new onshore projects will supply 80% to the domestic market until 2030 and 100% thereafter
- 2. Included forecast decarbonisation pathways aligned WA GSOO and WEM ESOO scenarios and applied emissions target to GPG modelling to achieve net zero emissions by 2050.
- 3. Allowed for integration of, and interdependencies between, WA's gas and electricity markets aligned WA GSOO and WEM ESOO scenarios, and used WEM ESOO supply outlook to inform GPG demand
- **4. Deferred extension of outlook period to 20 years** (future) while time and information constraints mean the 2024 WA GSOO maintains a 10-year outlook period, AEMO will adopt a longer outlook period in future WA GSOOs

Formal and informal meetings with key stakeholders including gas industry (buyers, sellers, shippers), WEM stakeholders, JTSI



# 2024 WA Gas Statement of Opportunities

Alex Uchanski

Manager WA Future System Planning & Forecasting



### Summary of findings



### 2024 WA GSOO | Key findings

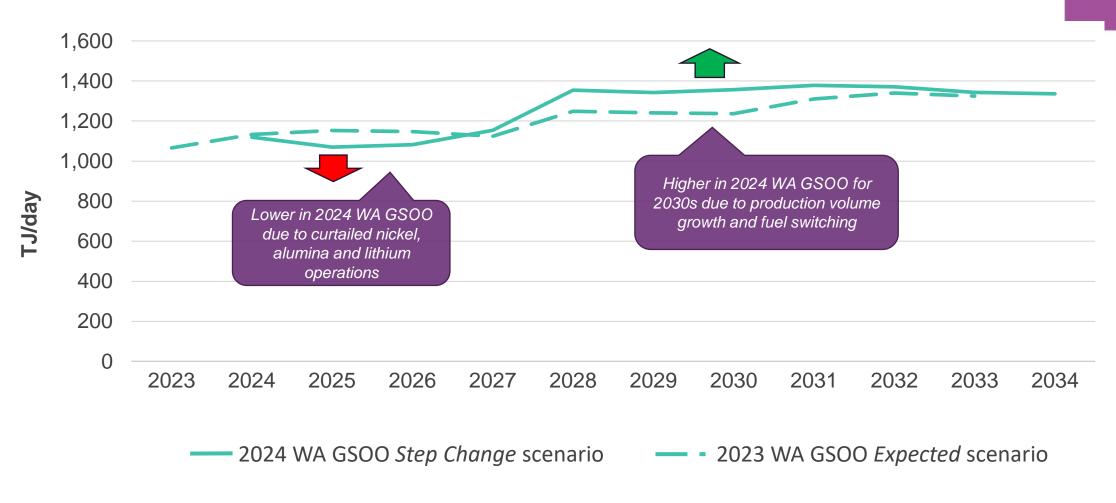
An improved near-term supply adequacy outlook compared to the 2023 WA GSOO, and continued risk of annual supply gaps requiring new sources of supply from 2030 onwards.

#### Over the outlook period of 2025 – 2034:

- Western Australia's near-term domestic gas adequacy forecast has strengthened, with supply to exceed consumption from 2024-2027, due to increased supply alongside a temporary reduction in mining and industrial use.
- A supply gap could materialise in 2028 if projects are unable to be accelerated to match consumption, or if consumption is greater than forecast.
- From 2030, new projects will be required to support domestic gas consumption as reserves in existing fields decline.
- Gas-powered generation (GPG) is forecast to become peakier and more seasonal. As a
  proportion of the total SWIS supply mix, GPG declines over the outlook period, but peak gas
  usage is forecast to increase reaffirming the critical role of gas in supporting WA's
  electricity system.

# Comparing domestic gas consumption, Step Change scenario, 2023 and 2024 WA GSOOs

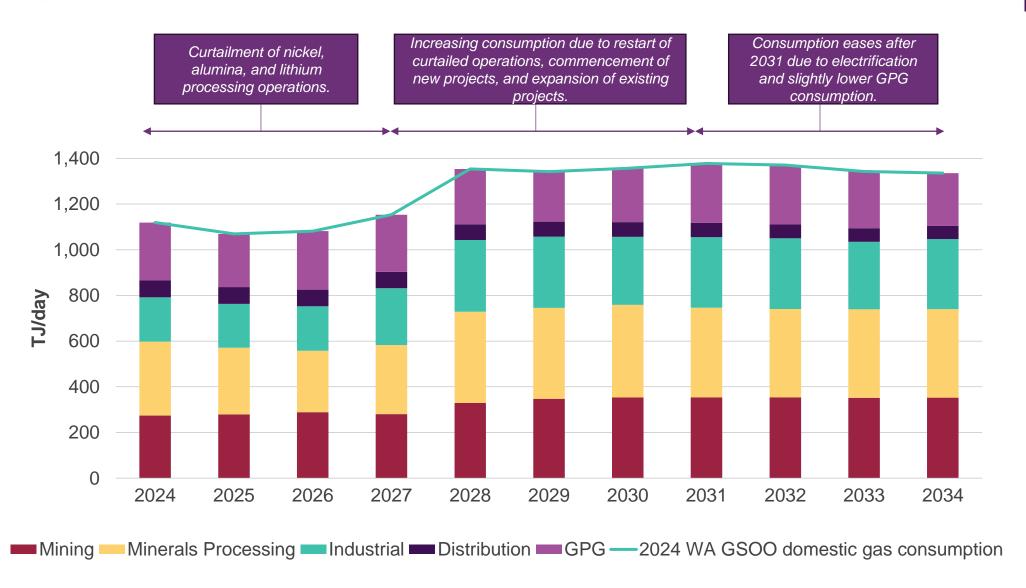




Note: 2024 WA GSOO Step Change scenario is closely comparable to the 2023 WA GSOO Expected scenario.

## Gas consumption forecasts – Step Change scenario

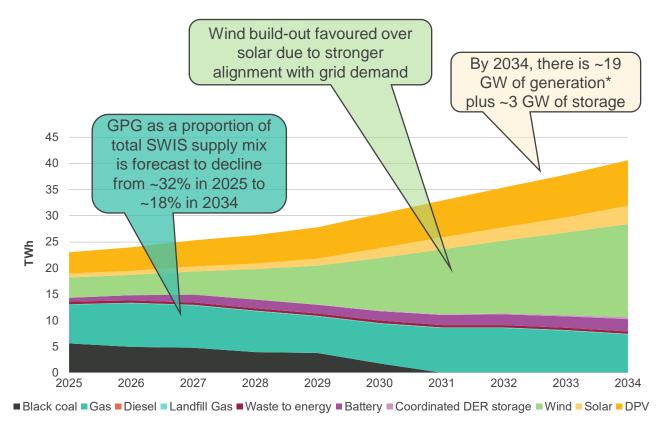




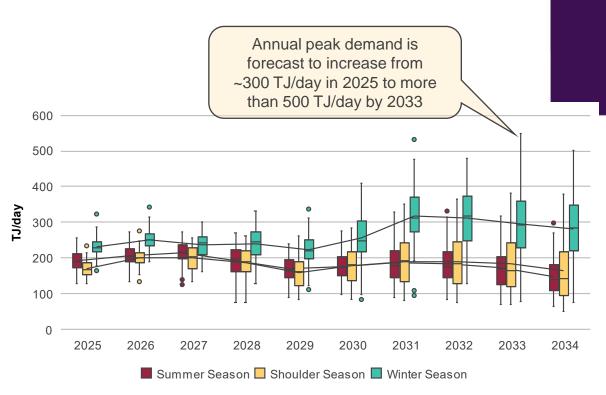
### Gas powered generation – Step Change scenario



GPG is forecast to decline as a proportion of the total generation supply mix ...



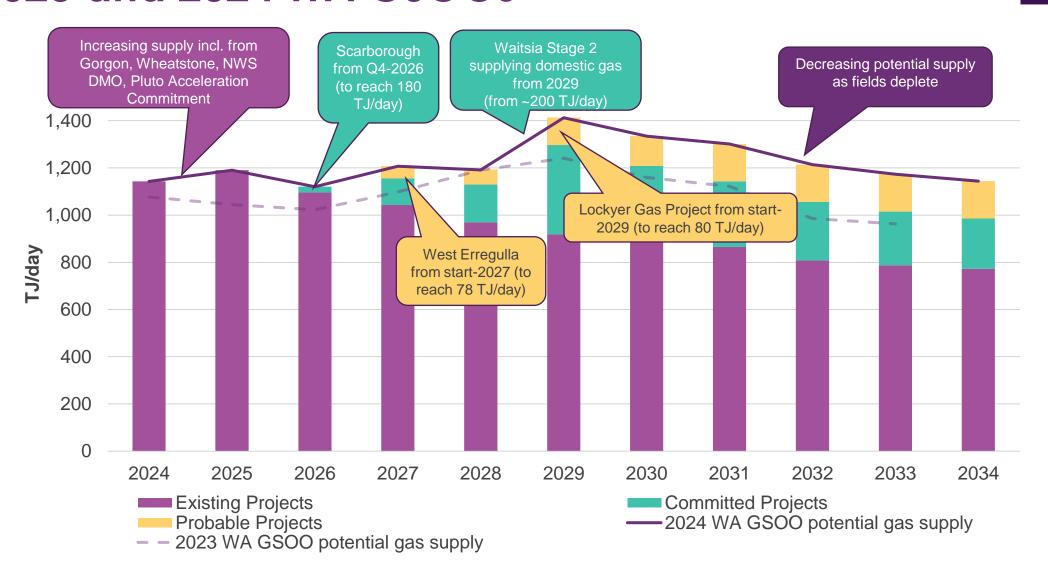
... but continues to play an important and increasingly 'seasonal' and 'peaky' role



<sup>\*</sup>Including over 6 GW of behind-the-meter DPV

## Potential gas supply – Step Change scenario, 2023 and 2024 WA GSOOs

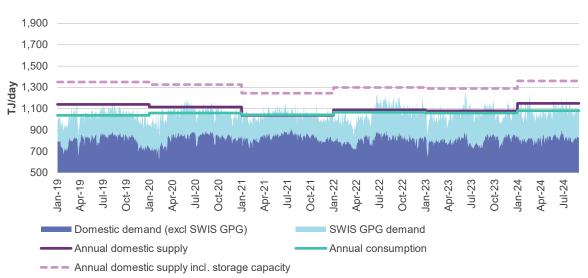




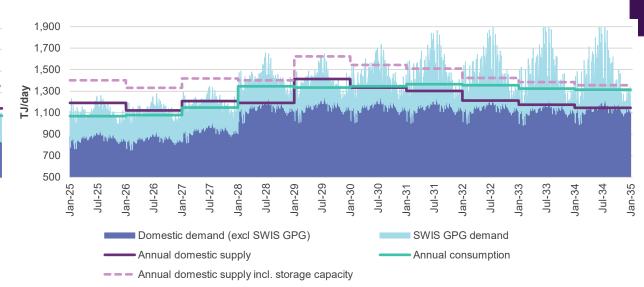
# Forecast supply capacity and gas market daily demand – Step Change scenario



#### Historical daily demand



#### Forecast daily demand

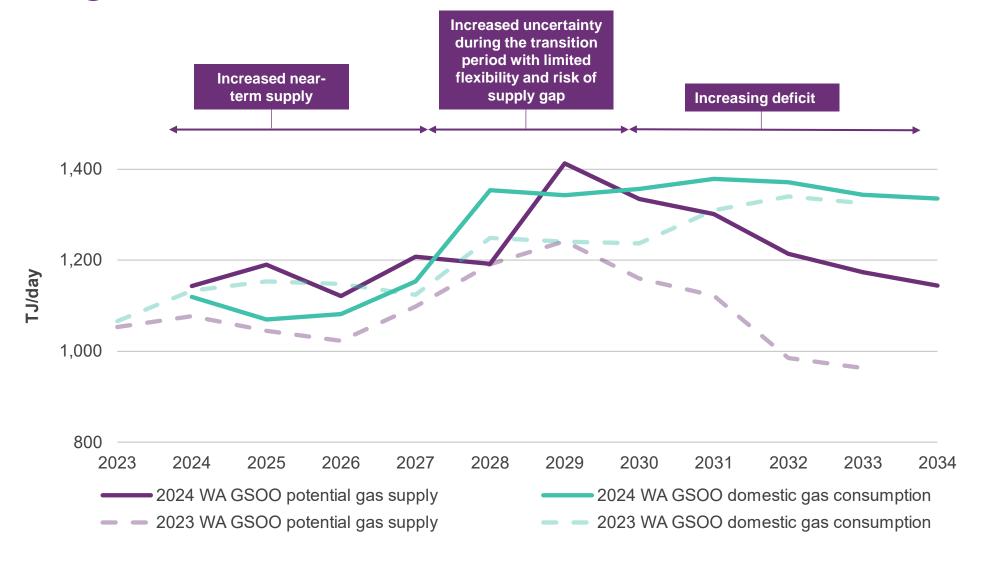


#### **NOTES:**

- 1. Gas can be withdrawn from storage at a rate of ~210 TJ/day
- 2. Modelling indicates that pipeline capacity is not contributing to forecast gas supply gaps

# WA domestic gas supply adequacy - Step Change scenario\*





<sup>\*</sup>Includes probable gas supply projects: no FID but expected to be developed during the outlook period given forecast LNG/domestic gas prices



# Questions and Feedback

WA Future System Design

WA.futuresystemdesign@aemo.com.au





### Thank you

We welcome your feedback to improve our forums in 2025.



For more information visit

aemo.com.au