2020 WA GSOO development update

Presented to the WA Gas Consultative Forum

Rebecca Petchey, Principal, Reserve Capacity and Debborah Marsh, Principal Analyst, System Design and Engineering

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Agenda

1. Preliminary key findings
2. Gas demand – forecast methodology, assumptions, and draft forecasts
3. Potential gas supply – forecast methodology, assumptions, and draft forecasts
4. Preliminary draft supply-demand balance
5. Next steps

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Draft key findings

- Over the outlook period 2021 to 2030:
  - WA's domestic gas demand is forecast to grow at an average annual rate of 0.7%, largely due to growth in the mining and minerals processing sectors.
  - Potential gas supply is forecast to decline at an average annual rate of 2.8%.
- The COVID-19 pandemic has increased demand for WA's commodities, particularly gold, while contributing to delays in large LNG projects (Scarborough and Browse).
- The WA gas market is expected to be well-supplied until 2026, and finely balanced from 2027.

2020 Gas demand forecasts: Overview

	Segment	Component
Tariff V	Distribution	Residential and Small Commercial
	Distribution	Industrial and Large Commercial
	Transmission	Industrial
Tariff D	Minerals Processing	Alumina and Nickel
Tariff D	Minerals Processing	New and Prospective Projects
Tariff D	Mining	Gold, Iron Ore, Nickel and Other
Tariff D	Mining	New and Prospective Projects
	GPG	Non-SWIS
	GPG	SWIS (RBP)
Other	Gas Processing	

- Applied models are broadly consistent with the forecasting methods applied to the East Coast gas market, but allowing for different consumption drivers
- FIR data continues to be an important source of data and is incorporated where available
- NIEIR forecasts inform scenario growth
- SWIS GPG forecast provided by AEMO's consultant, RBP

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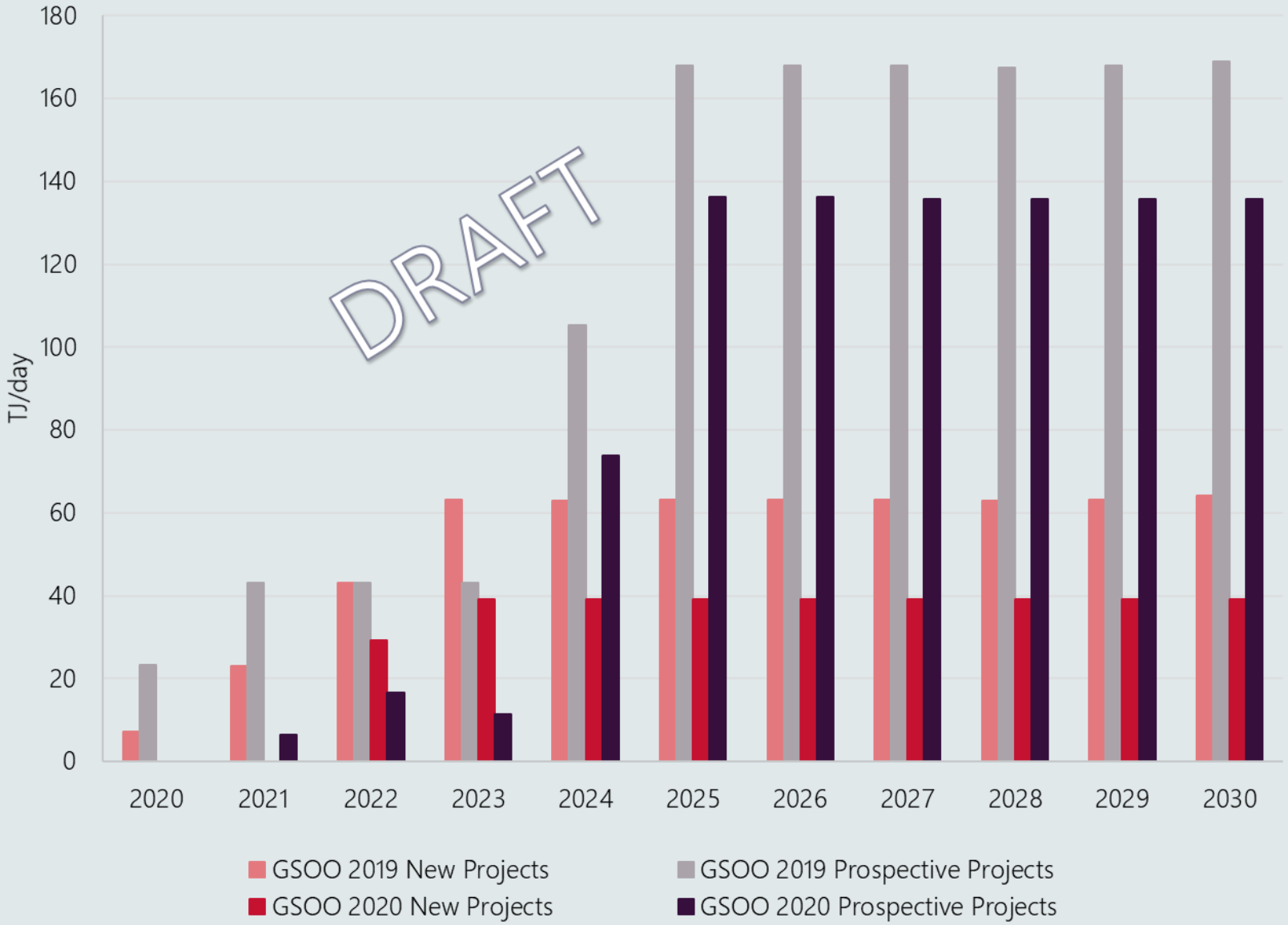
2020 New & Prospective Projects

New: 2020 forecast lower due to renewable supply, stop in development and removal of project from 2019 forecast replacing an existing site, i.e. no net increase.

Prospective: 2020 forecast reflective of economic outlook for commodities; removal of projects balanced with growth in projects in other commodities. One retirement further reduces demand in 2020.



New: obtained financial investment decision (FID) or under construction
Prospective: no FID but expected to be approved

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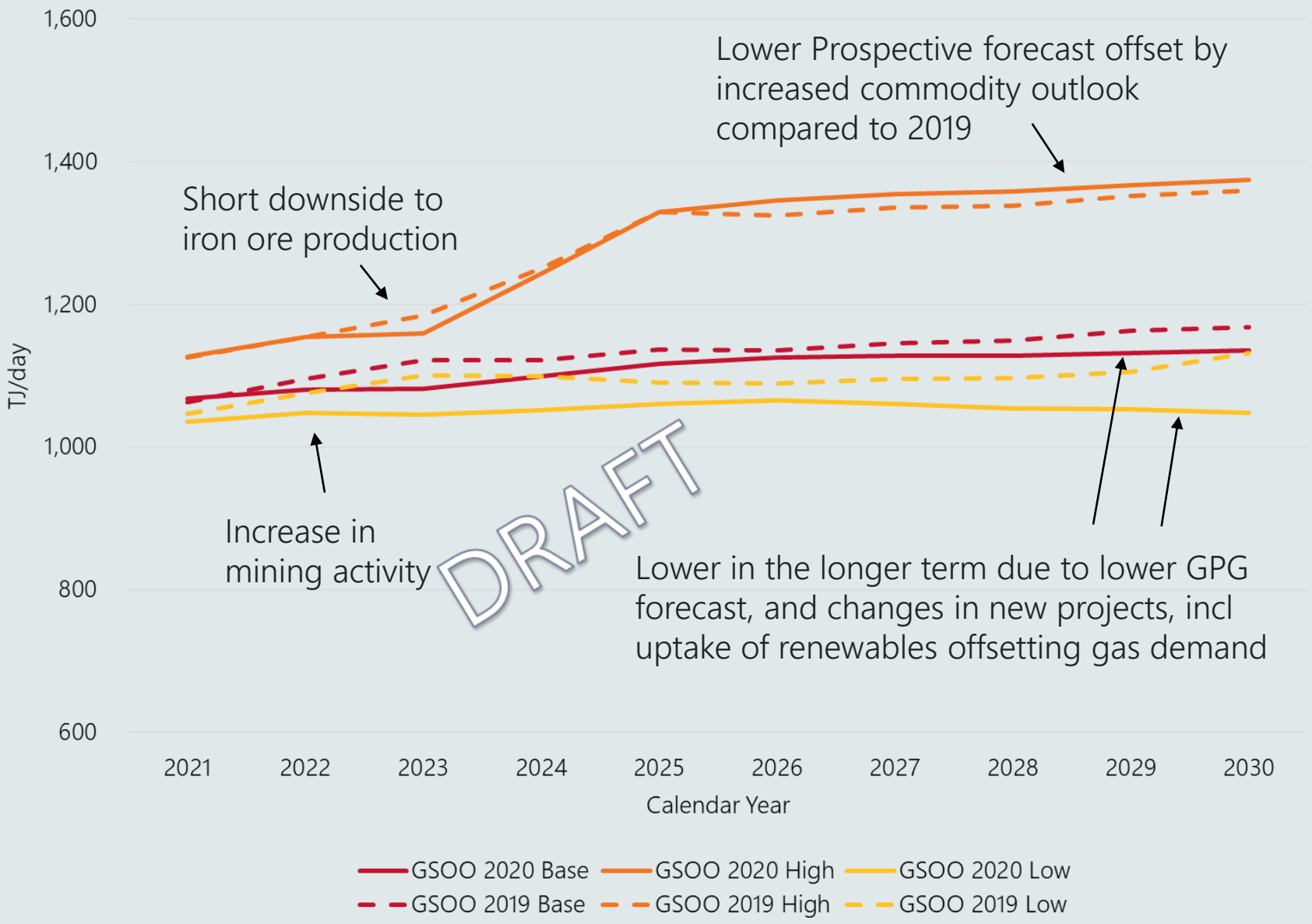
2020 Gas demand by scenario

Gas demand is projected to grow at an average annual rate of 0.7% over the forecast period



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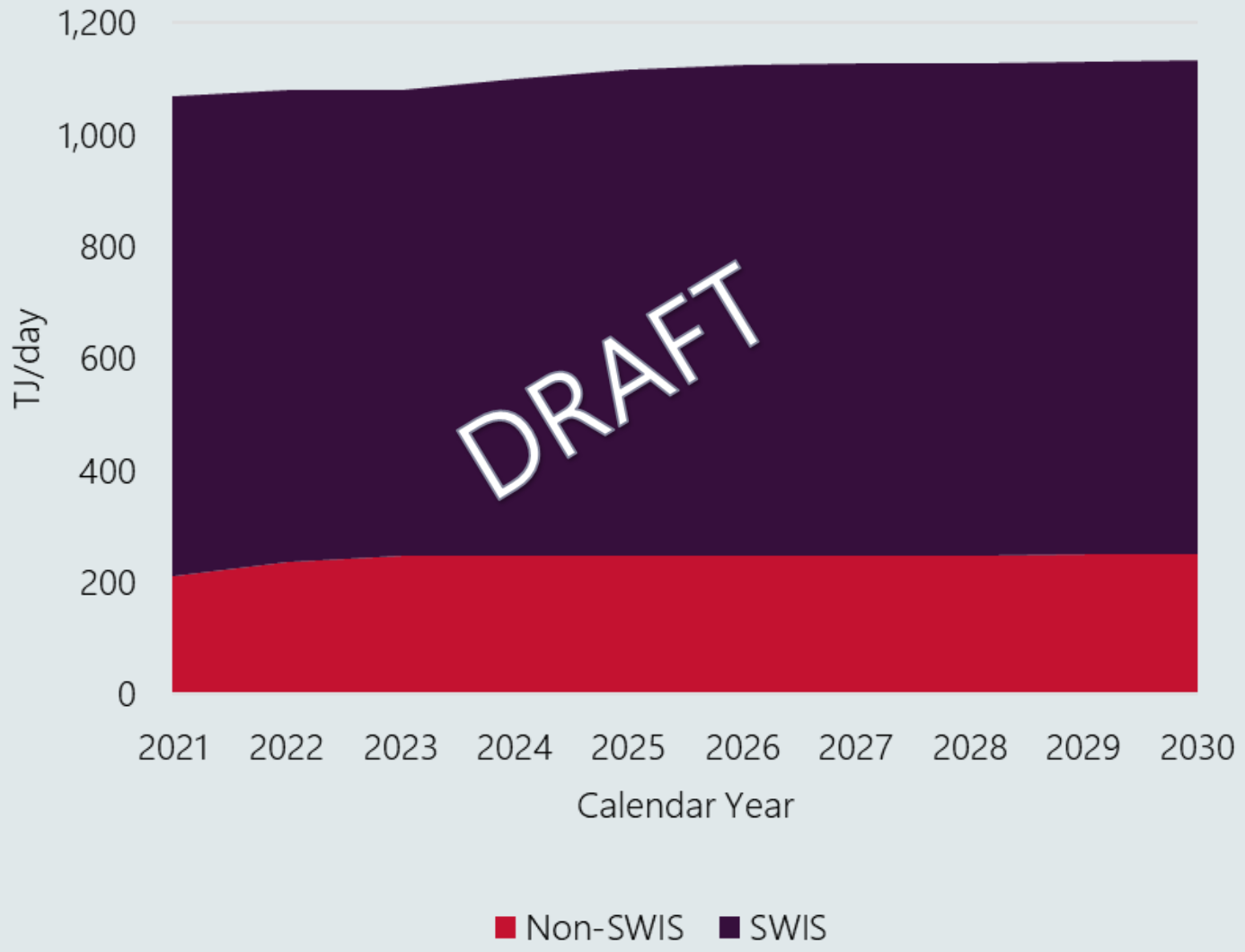
2020 Gas demand by GSOO Area

SWIS

Non-SWIS



Consumption growth mainly in the Non-SWIS GPG area

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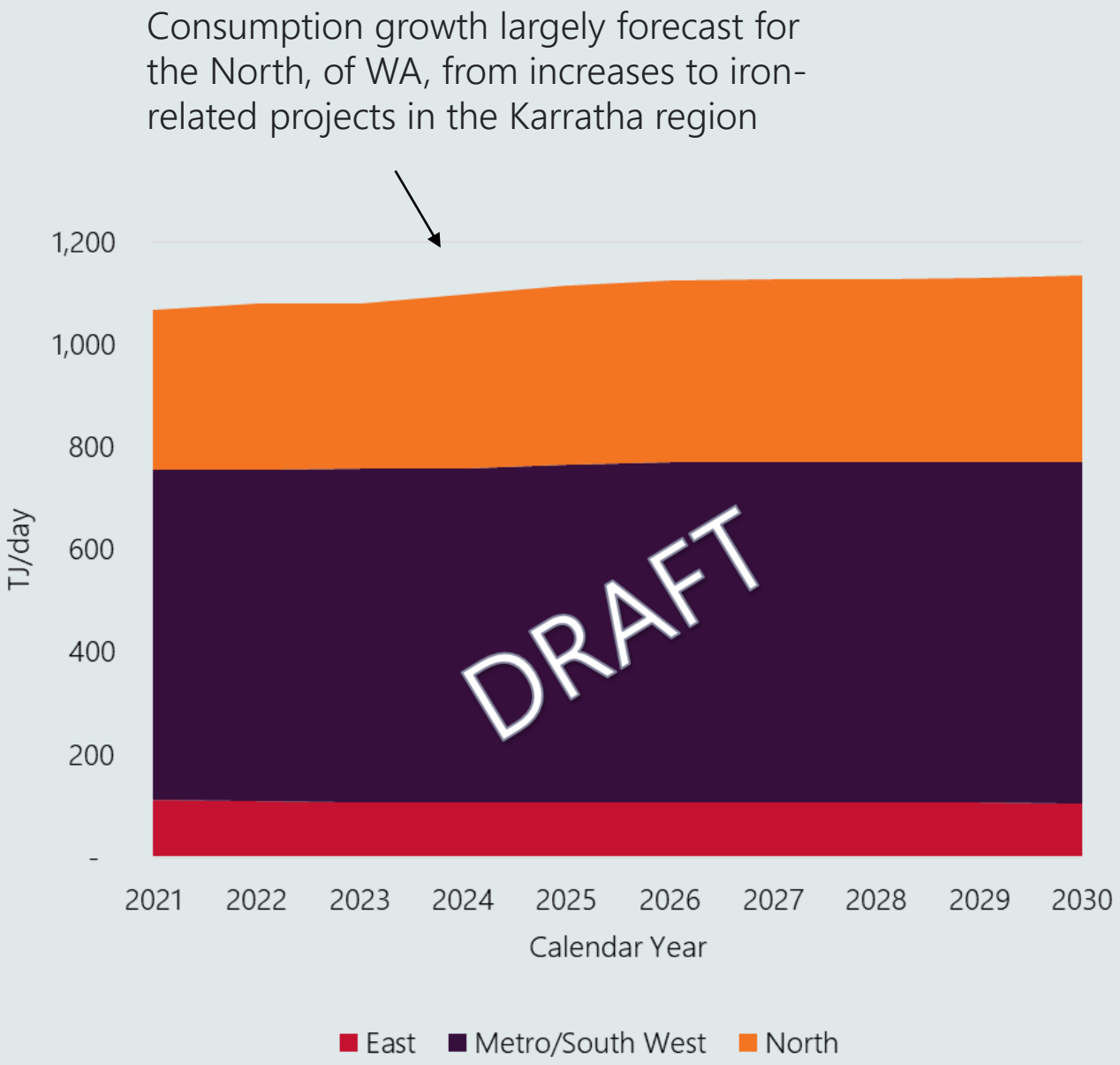
2020 Gas demand by GSOO Region

East
Metro/South West
North



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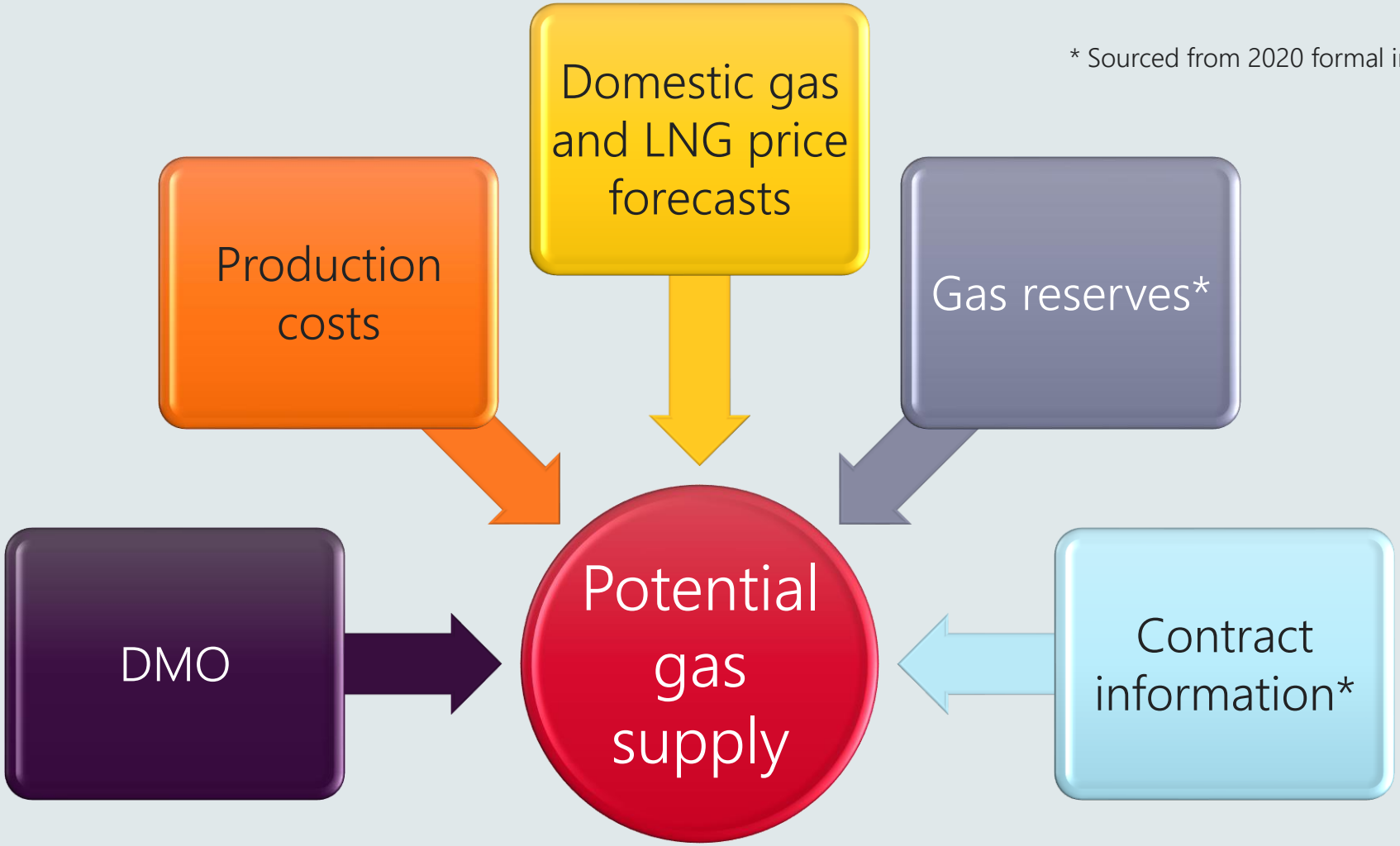
Potential gas supply input assumptions

* Sourced from 2020 formal information request data.



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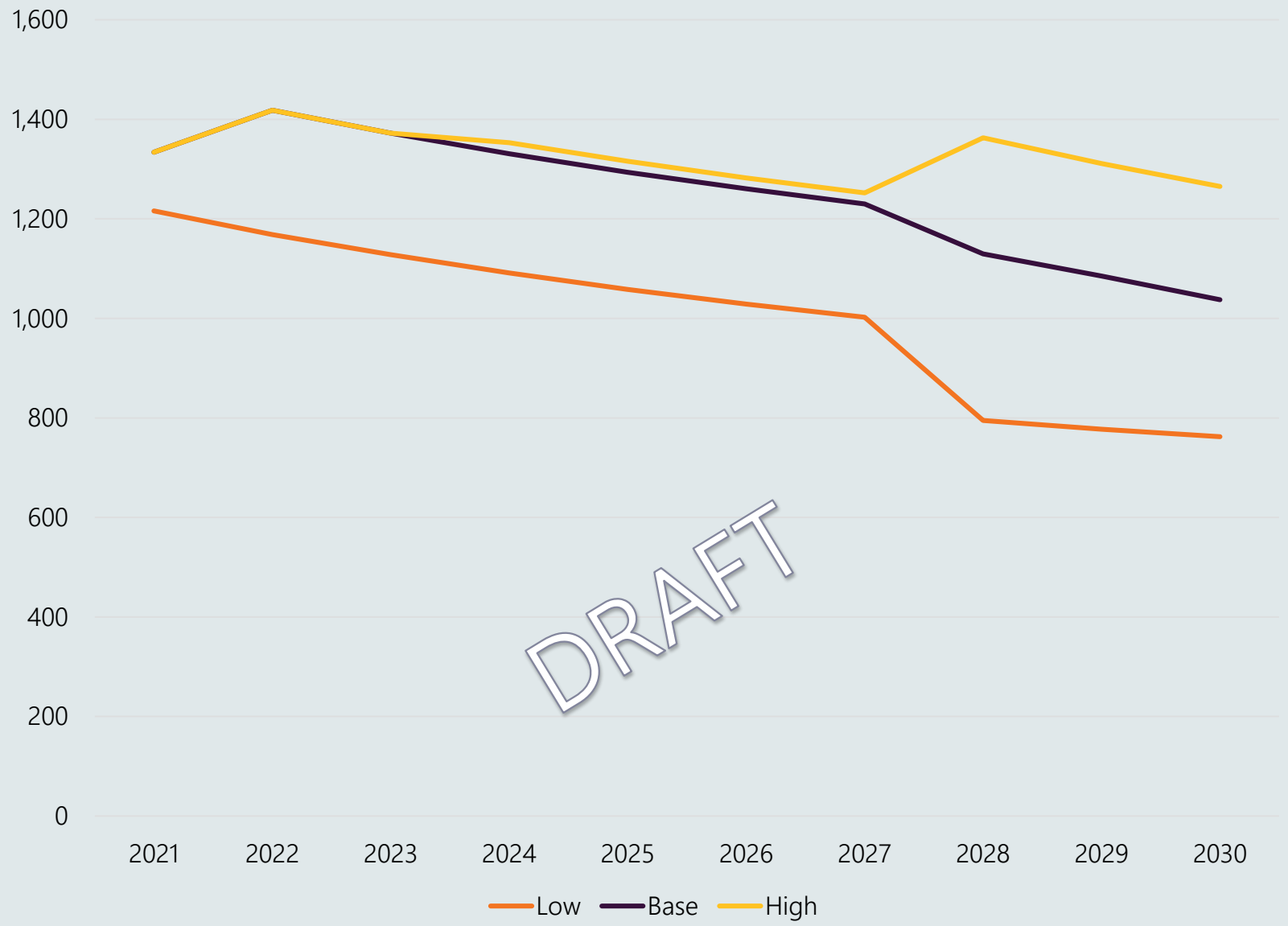
Potential gas supply forecast model

	Existing/committed domestic only	Existing/committed LNG-linked	Prospective domestic only	Prospective LNG-linked
Model logic	Potential gas supply equals the minimum of: • Production capacity or • Decline rate advised by the gas market participant in the FIR*	Potential supply is equal to the DMO.	Developed when the domestic gas price forecast exceeds the estimated long-run cost (LRC). Once developed, potential gas supply volume equals the minimum of: • Production capacity or • 10% of remaining reserves.	Developed when the forecast Asian LNG netback price exceeds the estimated LRC. Once developed, potential gas supply equals the DMO.
Projects included in the model	Beharra Springs, Devil Creek, Macedon, Varanus Island, Xyris.	Gorgon, KGP, Pluto, Wheatstone	West Erregulla	Waitsia stage 2, Scarborough

* Where remaining reserves are insufficient to maintain production for the entire outlook period.

Potential gas supply forecasts

In the base scenario, potential gas supply is forecast to decline at an average annual rate of 2.8% between 2021 and 2030.



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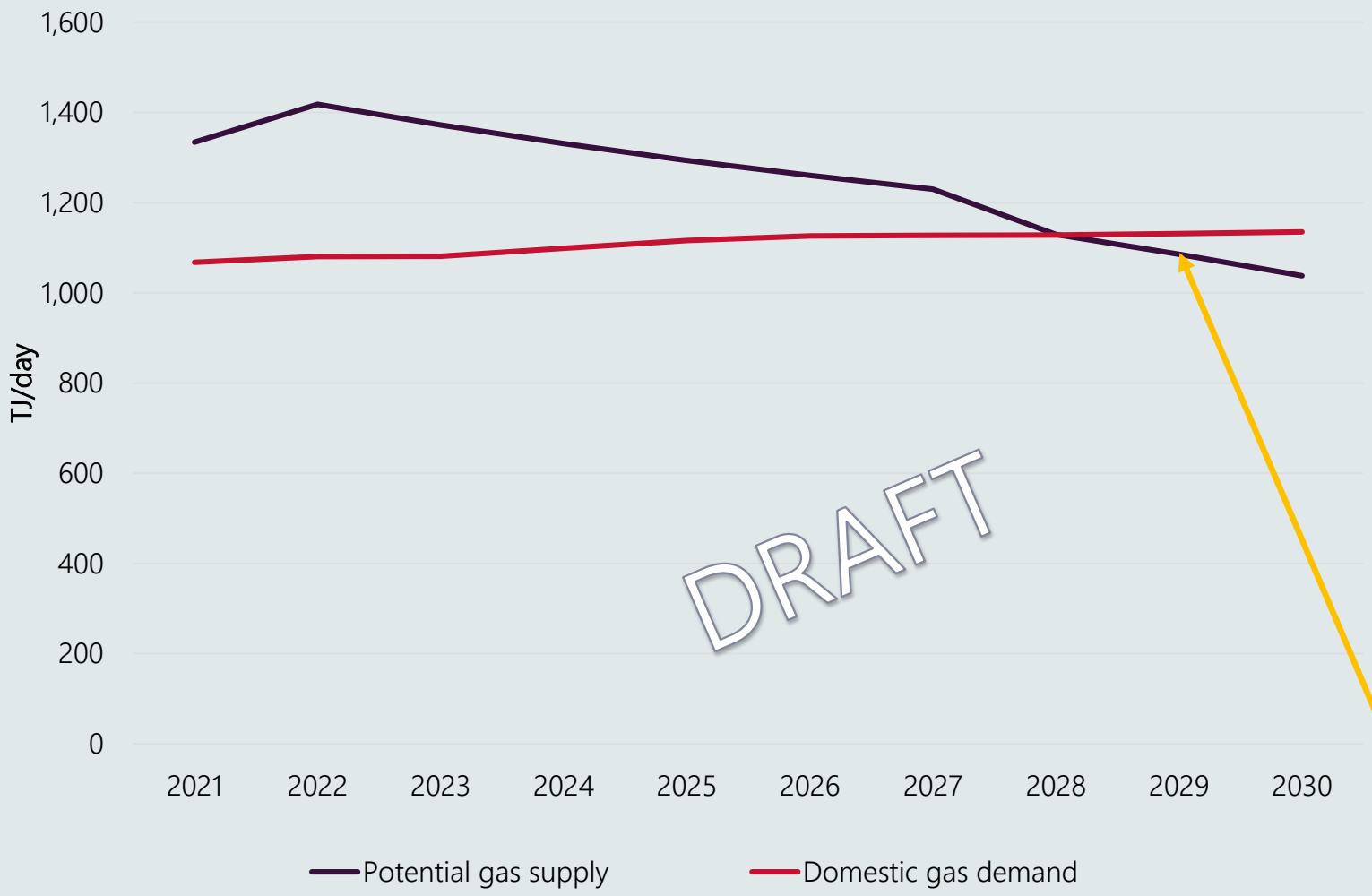
Preliminary supply-demand balance

In the base scenario, potential gas supply is expected to exceed forecast gas demand until 2029.



AEMO considers the under supply risk identified in the preliminary forecasts may be alleviated by options such as:
-If excess reserves from 2021 to 2026 at existing production facilities become available to meet demand after 2028.
-Gas could be withdrawn from storage. At the current rate of 200 TJ/day, the predicted shortfall disappears if stored gas is consumed, albeit this will depend on the duration this is required and amount of gas initially stored.
-Additional supply projects that are not currently included in the potential gas supply forecasts may enter the market.
-Undeveloped gas fields that may be connected to existing gas production facilities could be developed over the outlook period and may meet the projected demand.

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Next steps

AEMO values industry feedback to support the development of the WA GSOO, including finalising forecasts. Please do so by contacting:

wa.capacity@aemo.com.au or WAgasforum@aemo.com.au

Next steps:

- AEMO Board approval for publication: Thursday, 3 December 2020.
- Scheduled publication: Thursday, 10 December 2020.

Questions and feedback

Reserve Capacity

wa.capacity@aemo.com.au