

2021 WA GSOO Draft potential gas supply forecast

27 October 2021

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Agenda

1. Forecasting approach and methodology
2. Draft gas demand forecasts
3. Draft potential gas supply forecasts
4. Preliminary supply-demand balance
5. Questions

Overview of forecasting approach

What AEMO has done	Why
Applied model is broadly consistent with previous years, but accounts for increased international gas prices and updated consumption drivers.	LNG price is a strong driver of DMO fields.
FIR data continues to be an important source of data and is fully incorporated.	FIR data gives AEMO a baseline of future supply/demand and contracted positions, which contribute to its forecasts.
Stakeholder consultation has been a key contributor to the 2021 potential gas supply forecasts.	Market intelligence builds upon FIR data and adds context to the raw numbers.
Production cost forecasts (key inputs into the model) have been provided by EnergyQuest.	Incorporates stakeholder feedback to better reflect cost estimates.

Forecasting improvements post stakeholder feedback

Stakeholder feedback/Market observations	What AEMO has done
Continue engagement with stakeholders	<ul style="list-style-type: none">Conducted a survey following the 2020 WA GSOO requesting feedback.Increased frequency of meetings with gas stakeholders to improve market intelligence.
Increases in LNG prices have improved conditions for LNG-driven projects, and increased the incentive for domestic suppliers to lobby the government to be allowed to export.	Amended the potential gas supply forecasting methodology to better account for timing and volumes for major supply projects.
Cost of supply is a key part of the supply/demand modelling	Improved the accuracy of production cost data
Transparency around DMOs requested by stakeholders	Improved the modelling of WA Domestic Gas Reservation volumes, including DMO reconciliation*
Increased transparency around SWIS GPG modelling requested at the 5 October WAFRG	Modelled minimum thermal generation in the SWIS at 600 MW, in line with AEMO research.

Potential WA Domestic Gas Supply

IMPORTANT TO NOTE:

AEMO's forecasts of potential gas supply reflect how much gas could be produced if there was market demand for it at the forecast price. This approach is useful in assessing supply adequacy and identifying potential supply shortfalls.

Potential WA domestic gas supply is:

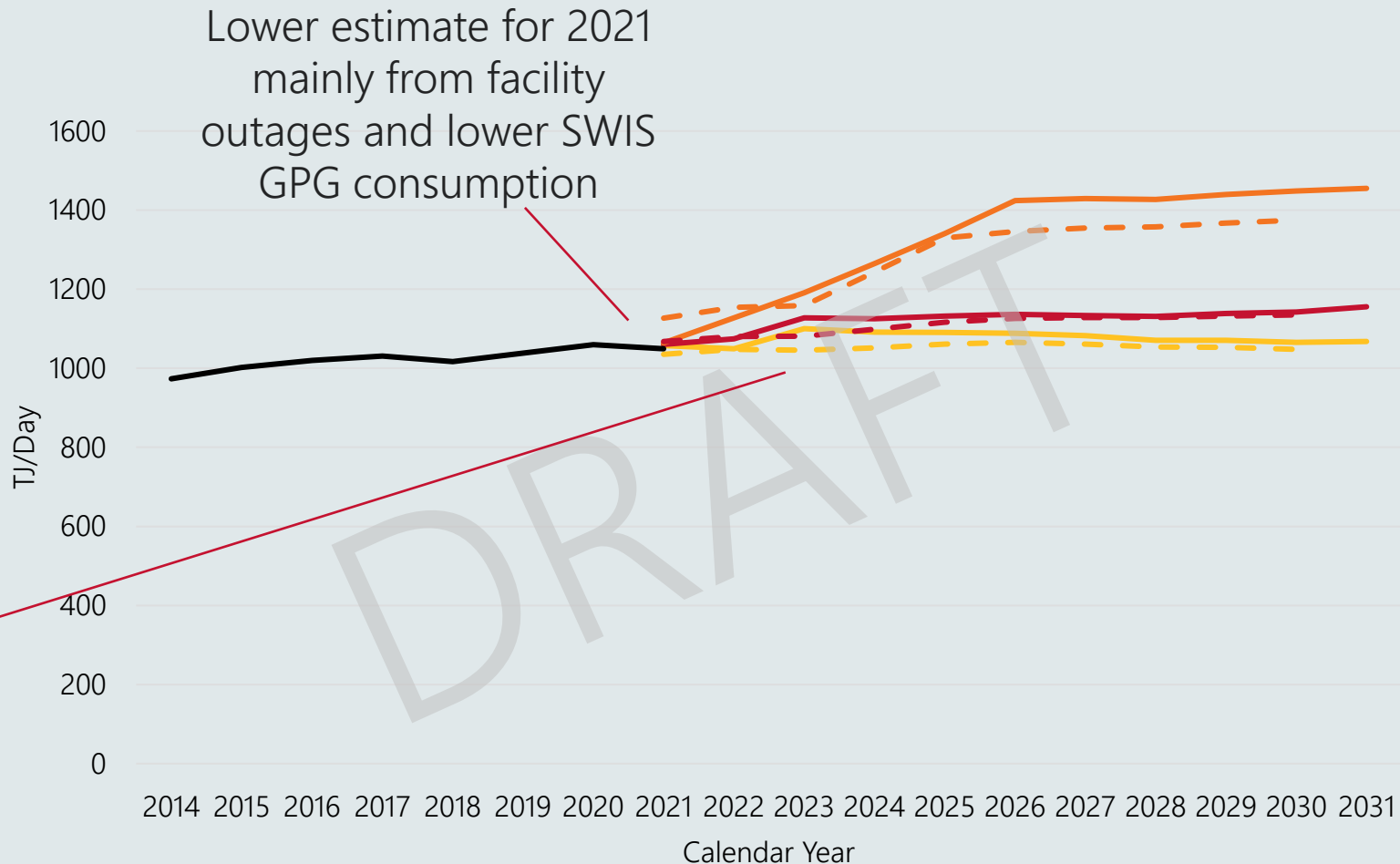
- Gas that could be economically offered to the domestic market given forecast prices and production costs, capped by the availability of processing capacity and gas reserves
- It does not project how much gas *will* be produced, but how much *could* be produced if there was demand at the forecast price

Potential WA domestic gas supply forecast model

	Existing/committed domestic only	Existing/committed LNG-linked	Prospective domestic only	Prospective LNG-linked
Model logic	<p>Potential gas supply equals the minimum of:</p> <ul style="list-style-type: none"> • Production capacity or • Decline rate advised by the gas Market Participant in the FIR* 	<p>Potential supply equals the minimum of:</p> <ul style="list-style-type: none"> • DMO or • Forecast gas supply based on reserves 	<p>Developed when domestic price forecast exceeds the estimated long-run cost and when indicated by operator (with contingency)</p> <p>Potential gas supply equals the minimum of:</p> <ul style="list-style-type: none"> • Production capacity or • Decline rate based on similar fields in the same basin. 	<p>Developed when the forecast Asian LNG netback price exceeds the estimated LRC and when indicated by operator (with contingency)</p> <p>Once developed, potential gas supply equals the DMO.</p>
Projects included in the model	Beharra Springs, Devil Creek, Macedon, Varanus Island, Waitsia stage 1.	Gorgon, KGP, Pluto, Wheatstone, Waitsia stage 2, Spartan	West Erregulla	Scarborough

Gas demand by scenario

Updated
forecast since
the 5 Oct FRG,
incorporating
feedback given
at that forum

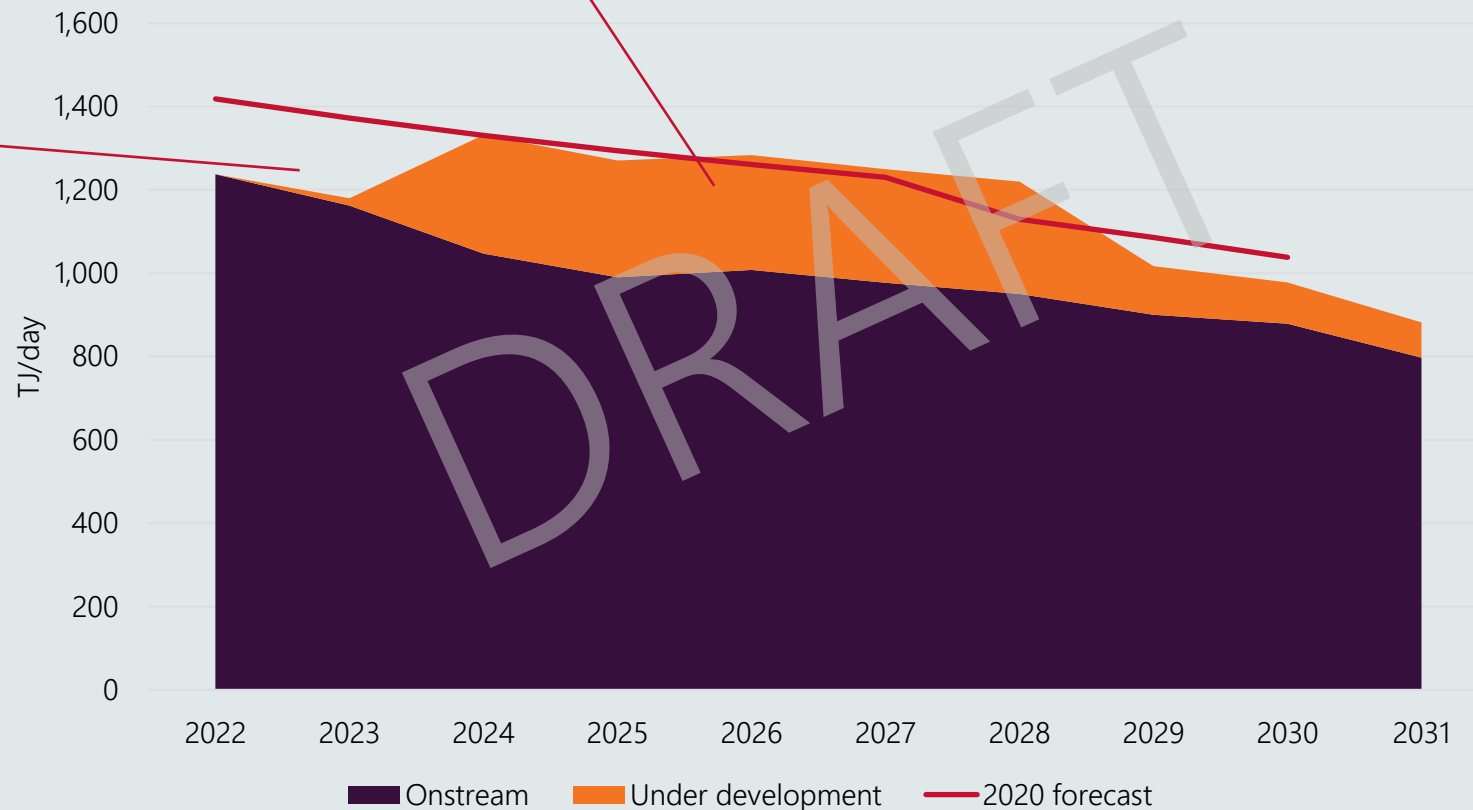


2021 High
scenario similar to
2020 forecast in
the medium term,
then sits higher
from additional
Prospective loads.

Potential gas supply – onstream and under development* projects

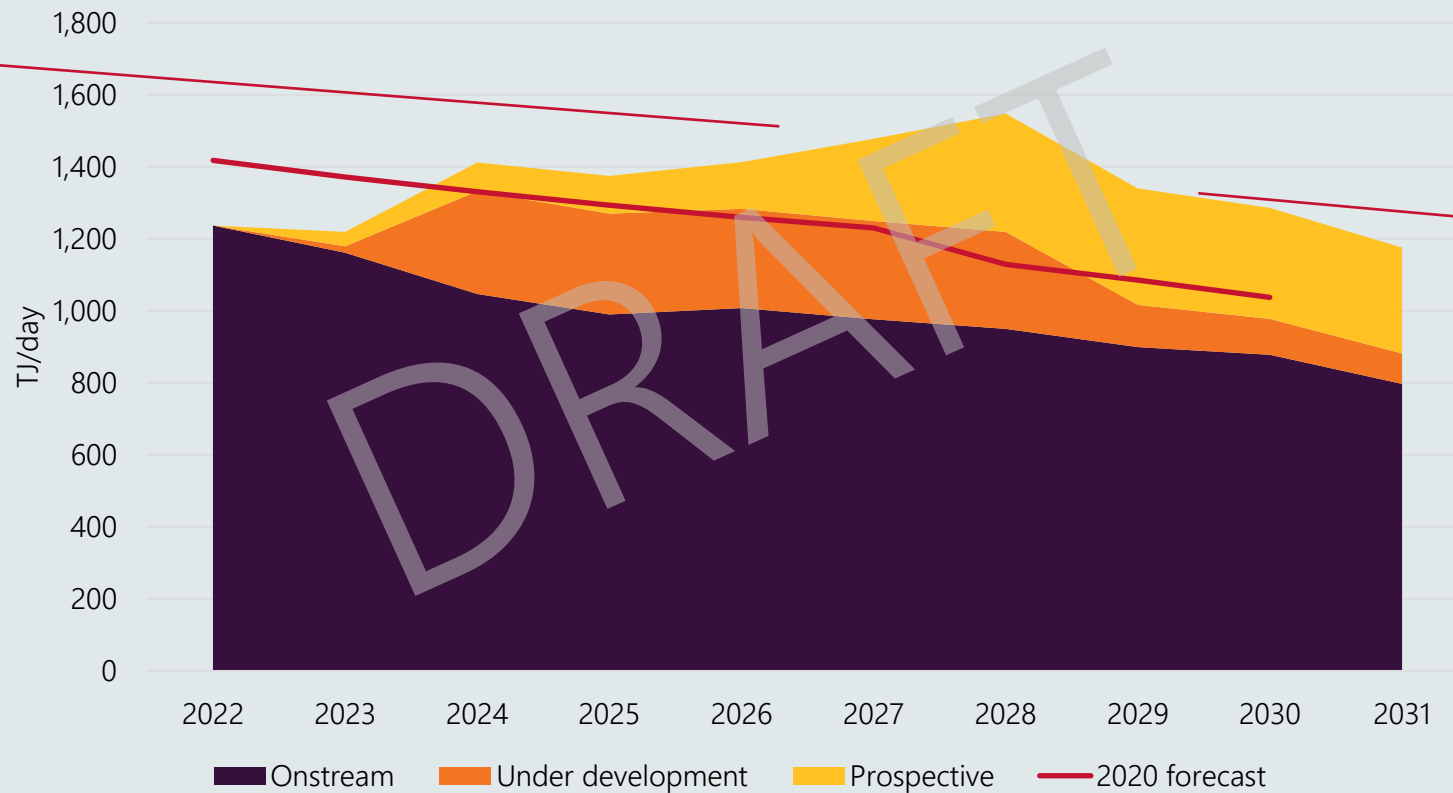
Early years differential is driven by lower expectation of Devil Creek and Varanus Island. Low NWS production also contributes.

Shape of Waitsia LNG contract can be clearly seen



Prospective* supply projects

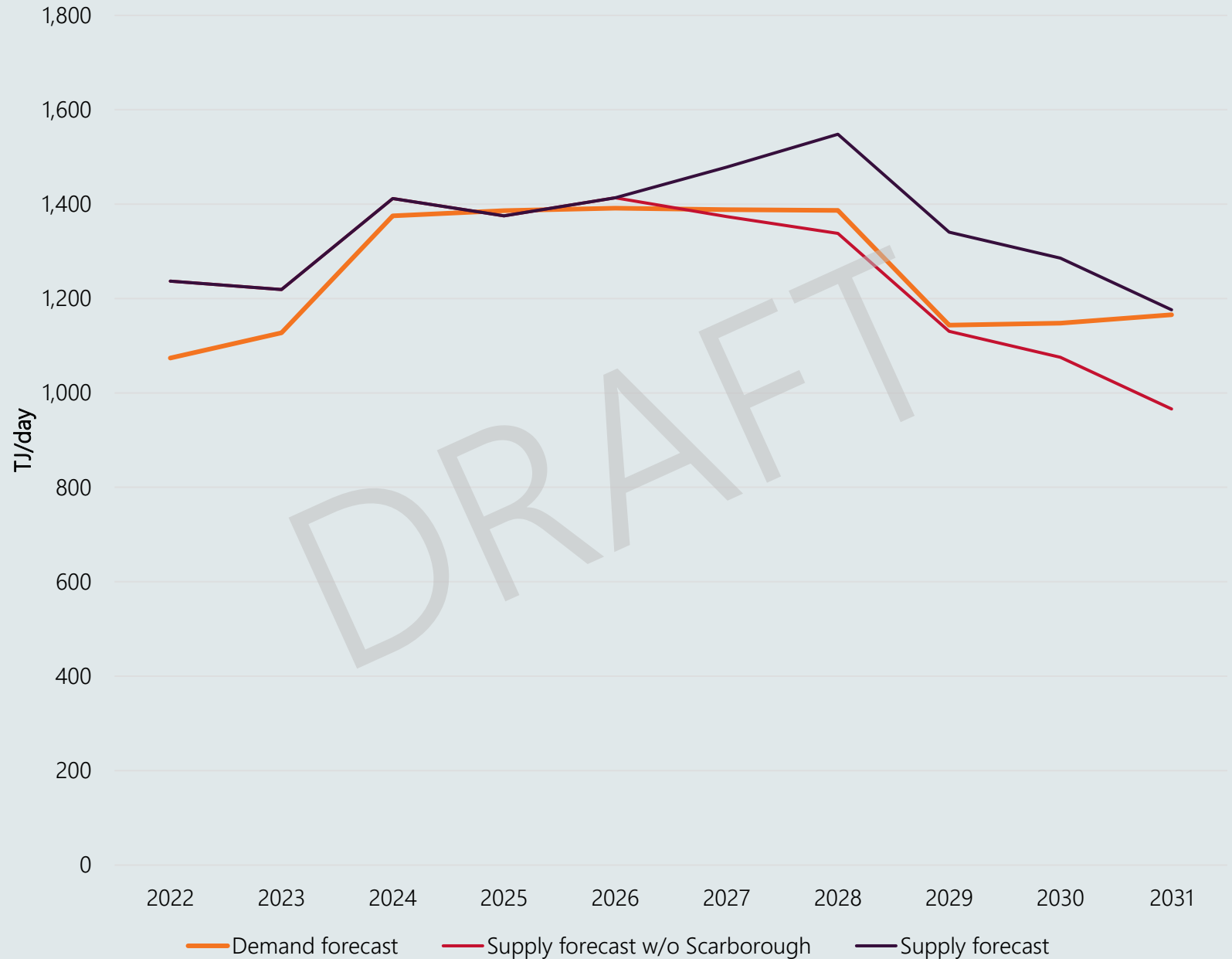
West Erregulla (2023)
and Scarborough
(2027) are the main
projects



Post 2028 (end of
Waitsia LNG), the
increase over 2020
is primarily driven
by the inclusion of
Scarborough

Preliminary supply-demand balance

In the base scenario, potential gas supply is expected to exceed forecast gas demand for the whole period.





Questions and feedback

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