

WA Gas Consultative Forum

2 November 2022



We acknowledge that this meeting is being held on Aboriginal land, the land of the Whadjuk people of the Noognar Nation.

**We pay respect to their Elders
past, present and emerging.**

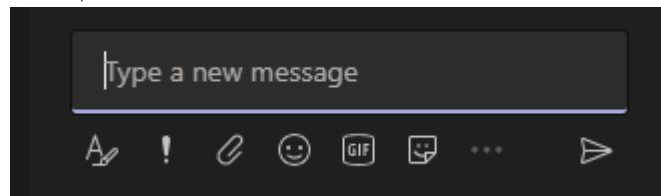
Join the Discussion and Teams



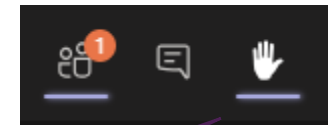
1. Click the chat icon to open the chat window

1. Click the hand icon to raise your hand

2. Type your question in the chat window



2. Keep your hand raised until you're called upon



3. Lower your hand after

Agenda

ITEM	TIME	TOPIC	PAPERS	RESPONSIBLE	ACTION
1.	1.00pm - 1.10pm	Welcome and Minutes - WAECF (20 July 2022)	Minutes	Chair (AEMO)	Endorsement
2.	1.10pm - 1.20pm	Publication of Tanker Gas Information on the Gas Bulletin Board (GBB)	Presentation	Sonia Botero (AEMO)	Note / Discussion
3.	1.20pm - 1.45pm	Updated gas supply and demand forecast	Presentation	Christopher Meredith (AEMO)	Note / Discussion
4.	1.45pm - 2.15pm	Changes associated with Hydrogen in the Gas System - implications of changes to the National Gas Laws	Presentation	Kaitlin Bond (EPWA)	Note / Discussion
5.	2.15pm - 2.35pm	2022 Year in Review	Presentation	Sonia Botero (AEMO)	Note / Discussion
6.	2.35pm - 2.40pm	Other Business	N/A		Note / Discussion
7.	2.40pm	Next meeting - TBA	N/A	Chair	Note

*Please note this meeting will be recorded for minute production

GBB Trucking Rule Change

GRC_2022_01

Presented to WA Gas Consultative Forum

By Sonia Botero, Analyst, WA Market Operations and Support

2 November 2022



GSI Rule Change

Background

- Registered Production Facility Operators to provide data to AEMO on the volume of LNG that Production Facility Operators transport from their Registered Production Facilities by road Tankers;
- AEMO to publish these gas volumes on the Gas Bulletin Board (GBB); and
- The data to be provided and published on a monthly basis.

Amending Rules

- GSI Rule 73A: Registered Production Facility Operators to provide Monthly Trucked Gas Data
- GSI Rule 89A: Publication of Monthly Trucked Gas Data on GBB
- Glossary definitions:
 - Production Facility
 - Monthly Trucked Gas Data
 - Tanker

The Amending Rules will become effective at 08:00 am on 1 December 2022

GSI Rule Changes

IT System Changes

Nov 16 - Market Trial Environment
Nov 23 - Production Environment

- New “Monthly Trucked Gas” submission type via UI and API.
- Included “Monthly Trucked Gas Data” in the Reports section to allow viewing and downloading historical data via UI and API.
- Internal submission and report publication compliance monitoring.
- Updates to documentation.

Submissions

Click or Drop CSV files to make submissions

SEARCH [] TYPE All STATUS []

File Name	Participant	Type	Status
		Monthly Trucked Gas	

Dropdown menu options:

- All
- Actual Flows
- Aggregate Shipper Deliveries
- Capacity Outlook
- Gas Specification
- Linepack Capacity Adequacy
- Medium Term Capacity
- Nominations and Forecasts
- Unknown

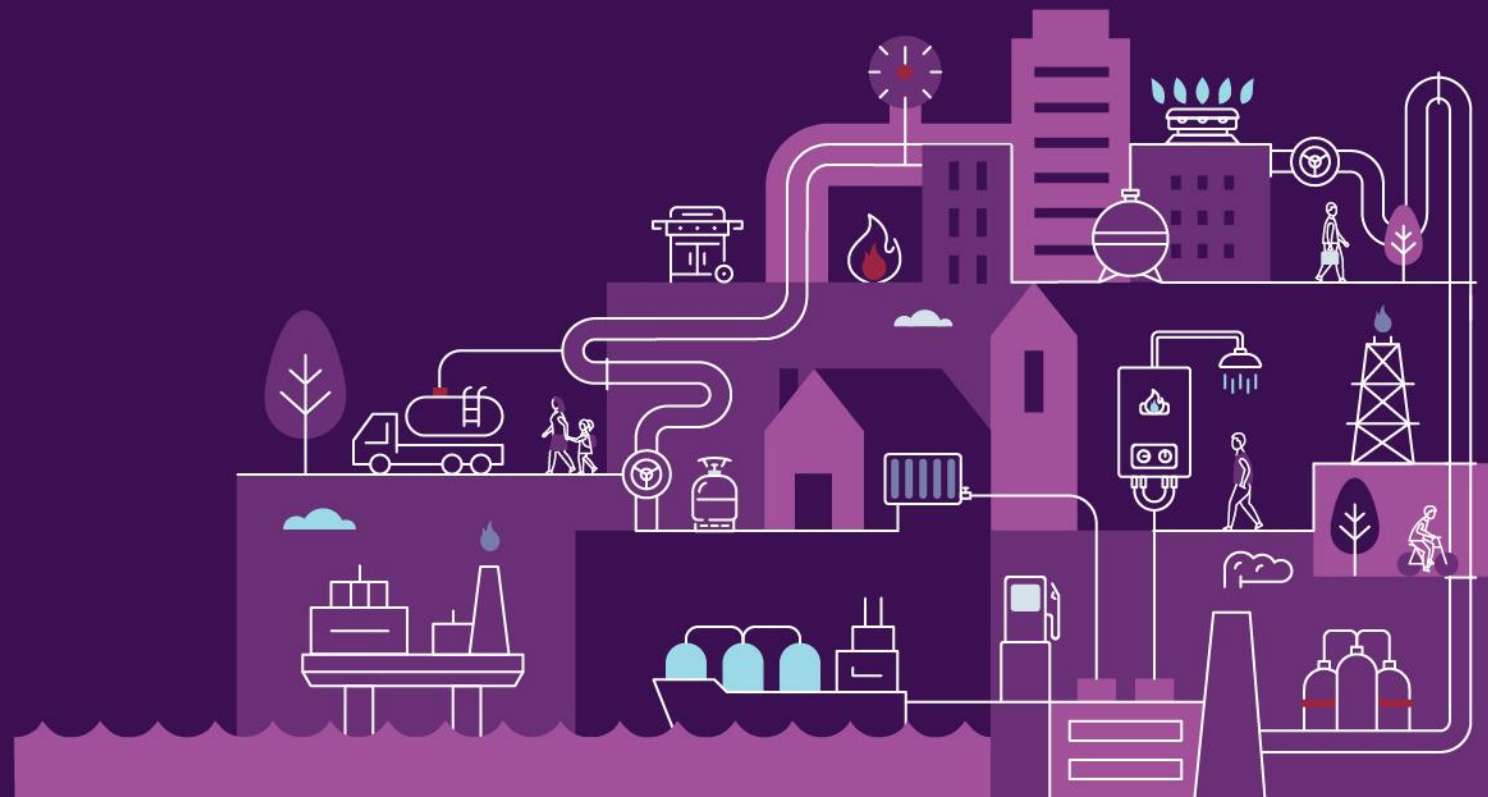
REPORTS	DOC
Medium Term Capacity	
Capacity Outlook	
Nominated & Forecast Flow	
Linepack Capacity Adequacy	Monthly Trucked Gas
Actual Flows	
End User Consumption	Submitted A
Large User Consumption	/10/2022 09
Large User Consumption by Category	/10/2022 09
Gas Specification	/10/2022 09
GSI Register - Change Notices	/10/2022 09

Questions and Feedback

Market Operations

wa.operations@aemo.com.au

1300 989 797



Potential gas supply and demand forecasts

Presented to WA Gas Consultative Forum

By Christopher Meredith, Analyst, WA

2 November 2022

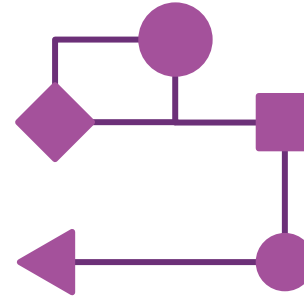


Agenda

1. Forecasting approach and methodology
2. Updated Potential gas supply forecasts
3. Updated supply-demand balance
4. Comparison to the 2021 WA GSOO
5. Questions

Forecasting approach and methodology

Supply Model



FIR



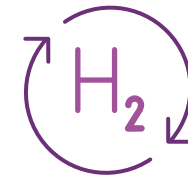
Meetings



Announcements



Production costs



Hydrogen

Potential WA domestic gas supply

Potential WA domestic gas supply is:

- Gas that could be made available to the WA 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.

Updated potential WA domestic gas supply forecast model (base scenario)

	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>Either:</p> <ul style="list-style-type: none"> • Domestic Market Obligation (DMO), where the DMO is less than the nameplate plant capacity or • Nameplate capacity less 15% based on historical availability to account for plant maintenance, where the plant capacity is equal to the DMO. 	<p>Developed when domestic price forecast exceeds the estimated long-run cost (LRC) 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, Walyering	Gorgon, KGP, Pluto, Wheatstone, Waitsia Stage 2, Scarborough	West Erregulla	N/A

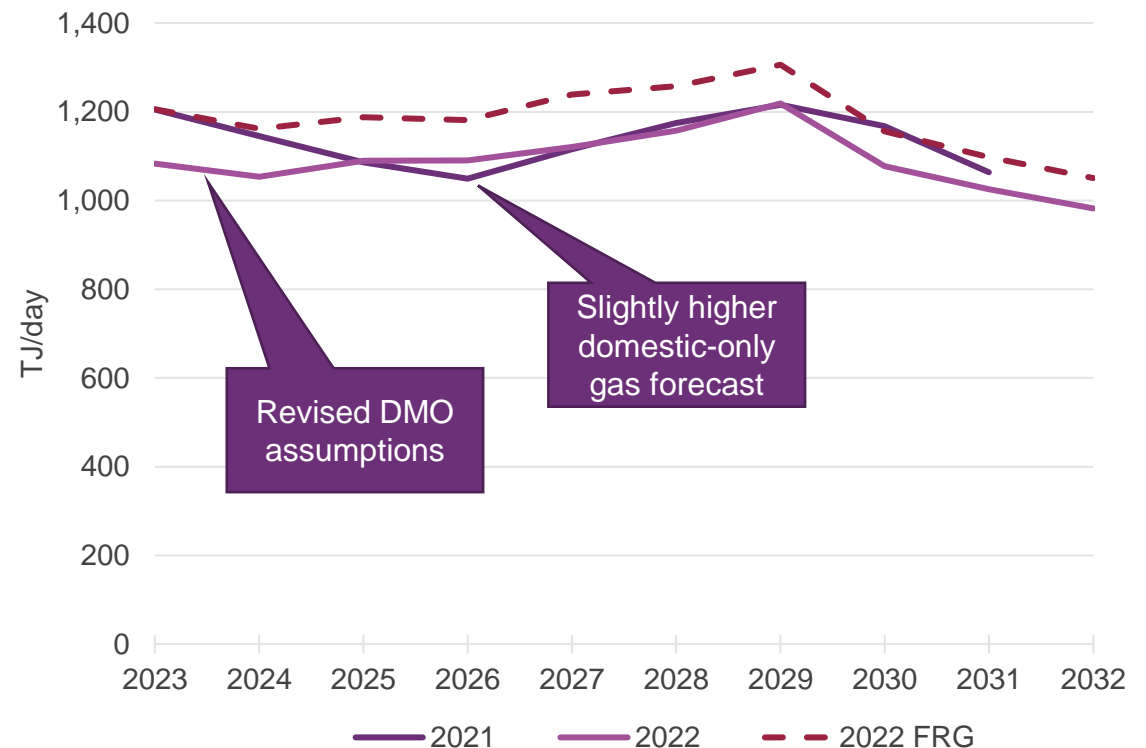
* Where remaining reserves are insufficient to maintain production for the entire outlook period.

2022 WA GSOO - supply

FRG feedback: “Gas supply forecast is too high”

- Updated supply modelling - More consistent with 2021 WA GSOO forecast
- Updated DMO assumptions
 - Previously full DMO delivery
 - Updated to forecast based on actual DMO delivery
- Updated understanding of Pluto DMO obligations
 - Acceleration gas
 - Additional commitment

Potential gas supply forecasts

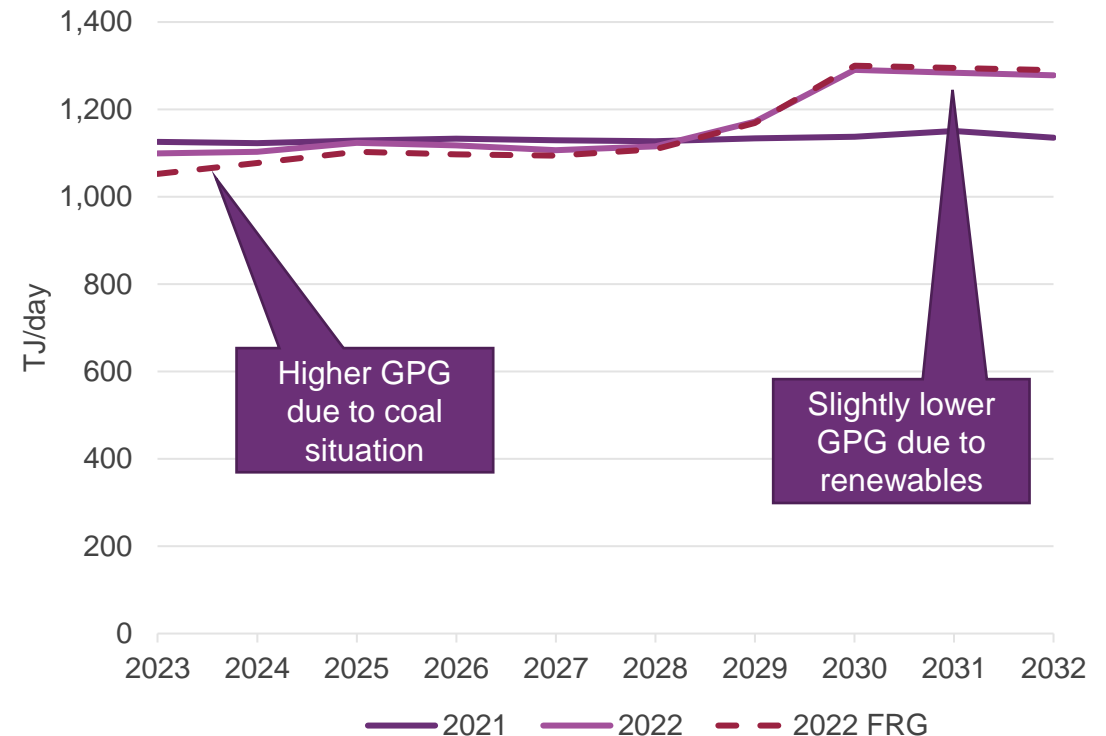


2022 WA GSOO - demand

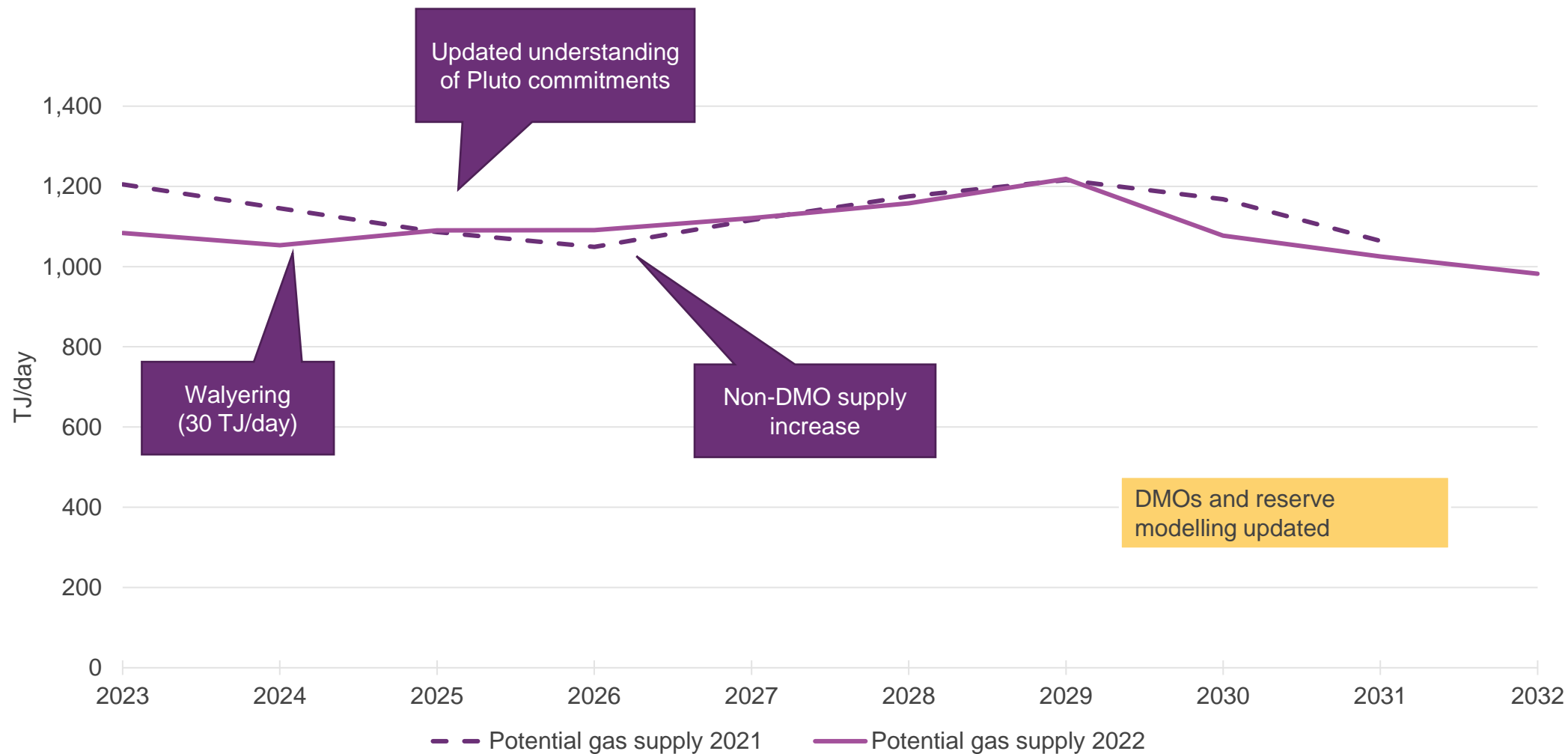
FRG feedback: “Power generation forecast is too low”

- Revisited GPG modelling with AEMO’s consultants
- Previous assumptions:
 - Full resumption of coal power in Jan 2023
 - Limited renewables impact
- Updated to include:
 - A revised outlook for coal recovery in 2023 based on the current situation for the base and high scenarios
 - A greater impact from renewables in the late 2020s

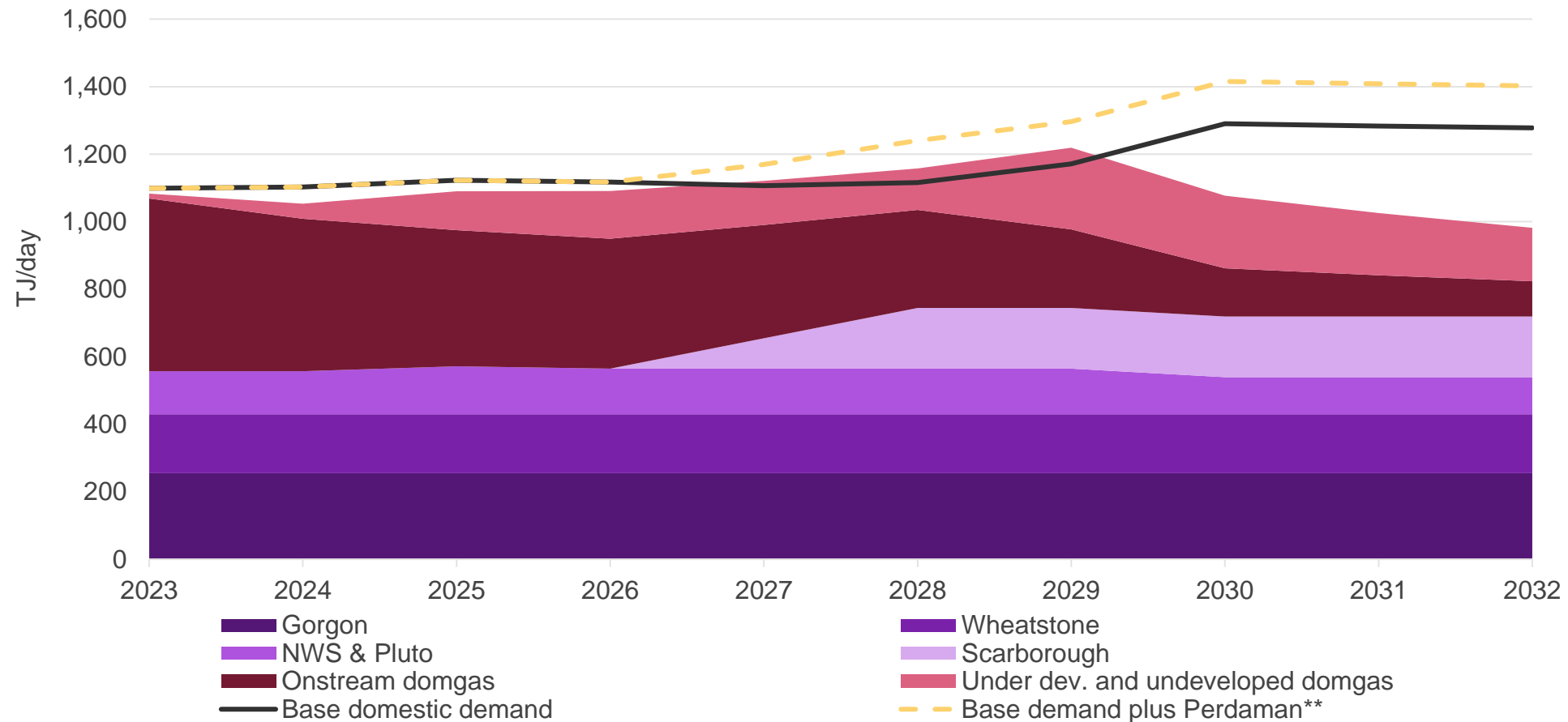
Total demand forecasts



Comparison to 2021 WA GSOO



Potential gas supply and demand (base scenario)*



*Includes prospective gas supply projects: no FID but expected to be developed during the outlook period given forecast LNG/domestic gas prices

** For this illustration, we have assumed Perdaman comes online in mid-2027 at 125 TJ/day

Please reach out to the WA Reserve Capacity team at wa.capacity@aemo.com.au for any questions

GBB (WA) 2022 Year in Review



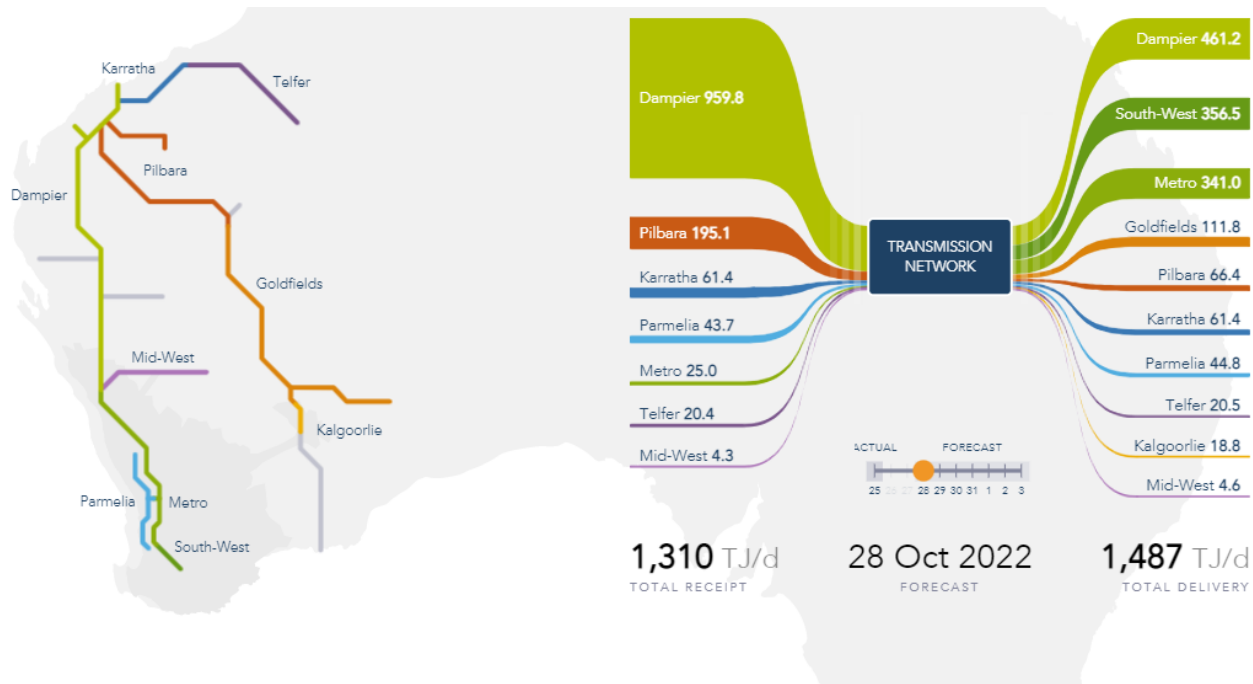
Presented to WA Gas Consultative Forum

By Sonia Botero, Analyst, WA Market
Operations and Support

2 November 2022



Agenda



- GBB System Updates
- Registration Activity
- 2022 Observations
 - Linepack Capacity Adequacy
 - Gas Supply and Demand
 - Storage

GBB System Updates

GBB 1.18

Nov 16 - Market Trial Environment
Nov 23 - Production Environment

At the request of Gas Market Participants AEMO will implement the following changes:

- Storage Capacity Graphic Barrel modified to include “Delivery” and “Receipt” labels.
- Updated Maps Section to indicate the precise report that produces the visualisations, including timestamps for Gas Day and Publication Time and clarification of data being displayed.

Capacity Outlook from Gas Day 28/09/2022, as at 27/09/2022 10:27:26 (GSI Rule 85(a))

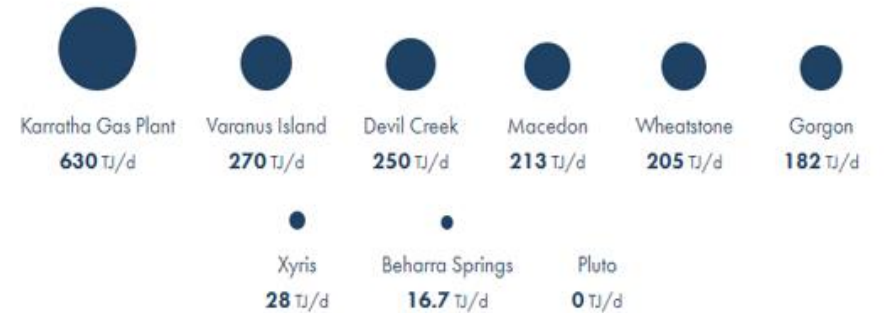
LINEPACK STATUS

ALL GREEN

PIPELINE CAPACITY OUTLOOK

Dampier to Bunbury Natural Gas Pipeline	845 TJ/d
Wheatstone Ashburton West Pipeline	336.7 TJ/d
Goldfields Gas Pipeline	202.5 TJ/d
Pilbara Energy Pipeline	166 TJ/d
Parmelia Gas Pipeline	65.4 TJ/d
Telfer Gas Pipeline	29 TJ/d
Fortescue River Gas Pipeline	26 TJ/d
Mid West Pipeline	10.6 TJ/d

PRODUCTION CAPACITY OUTLOOK

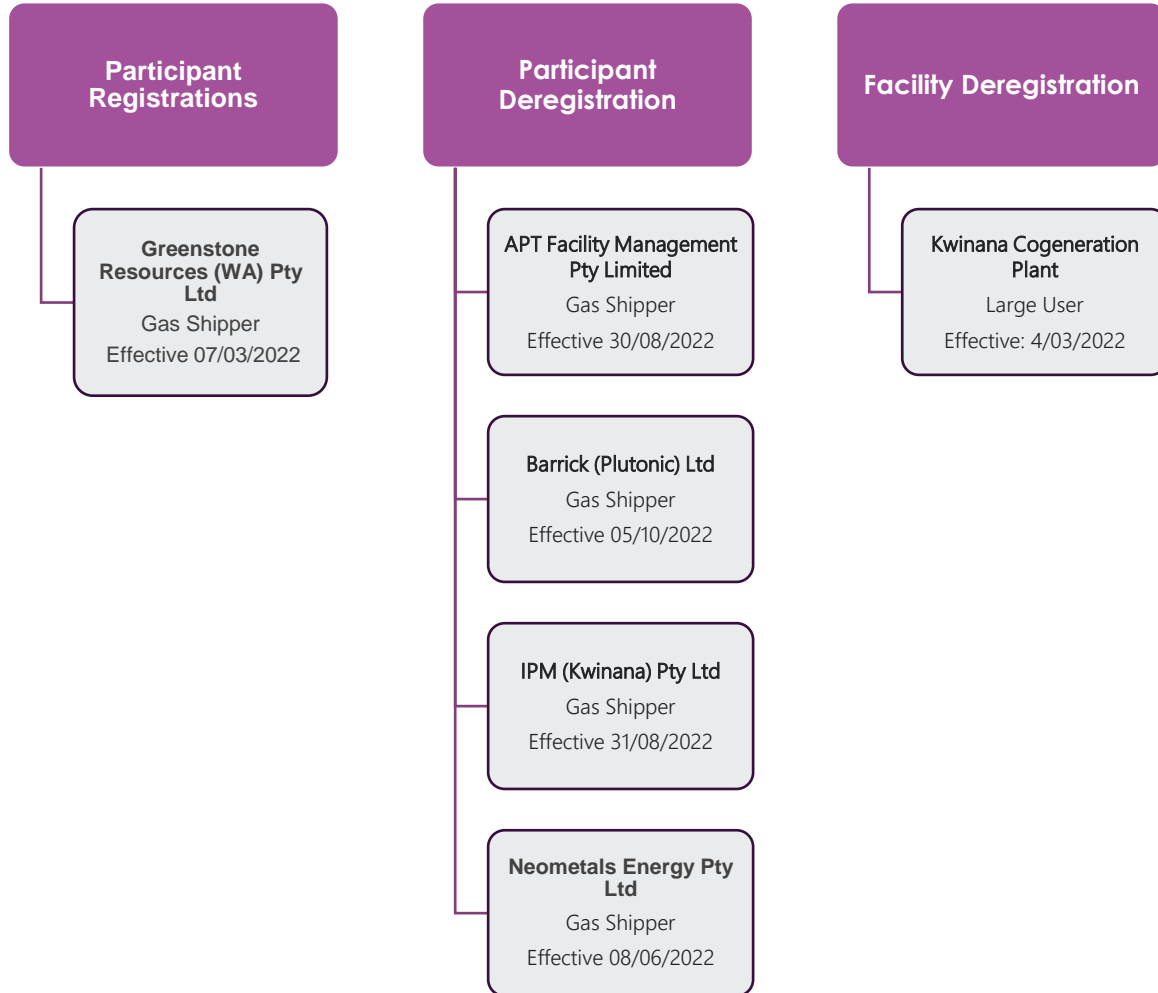


STORAGE CAPACITY OUTLOOK



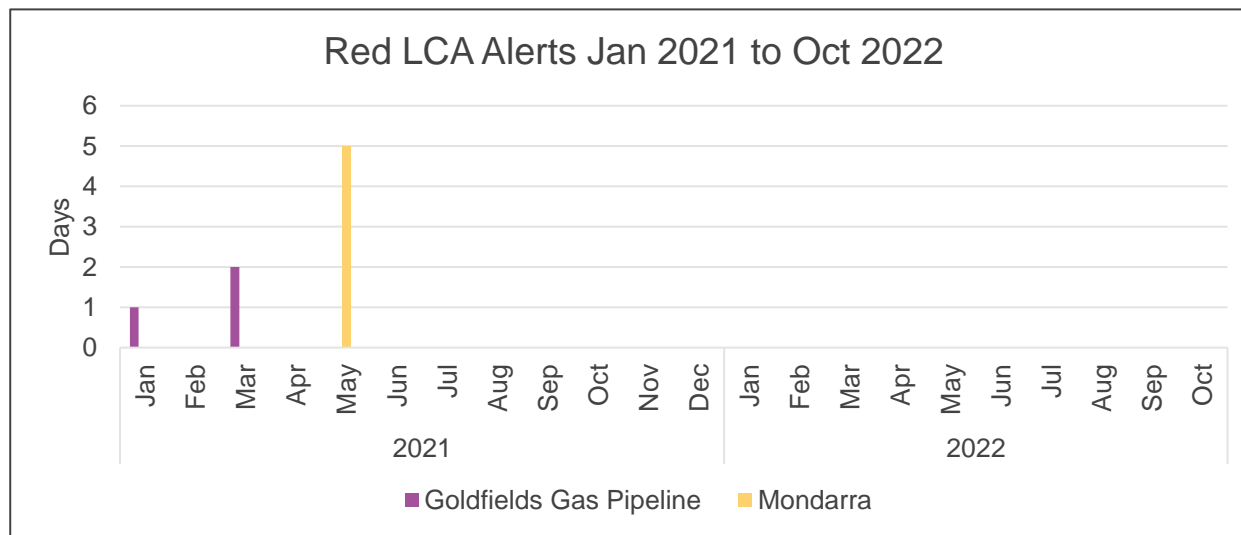
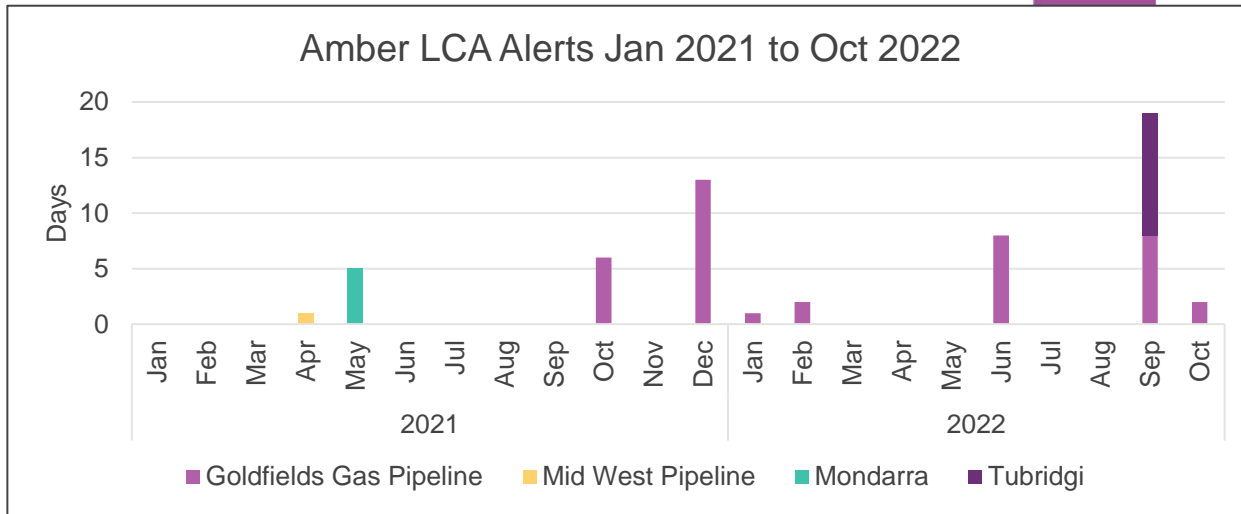
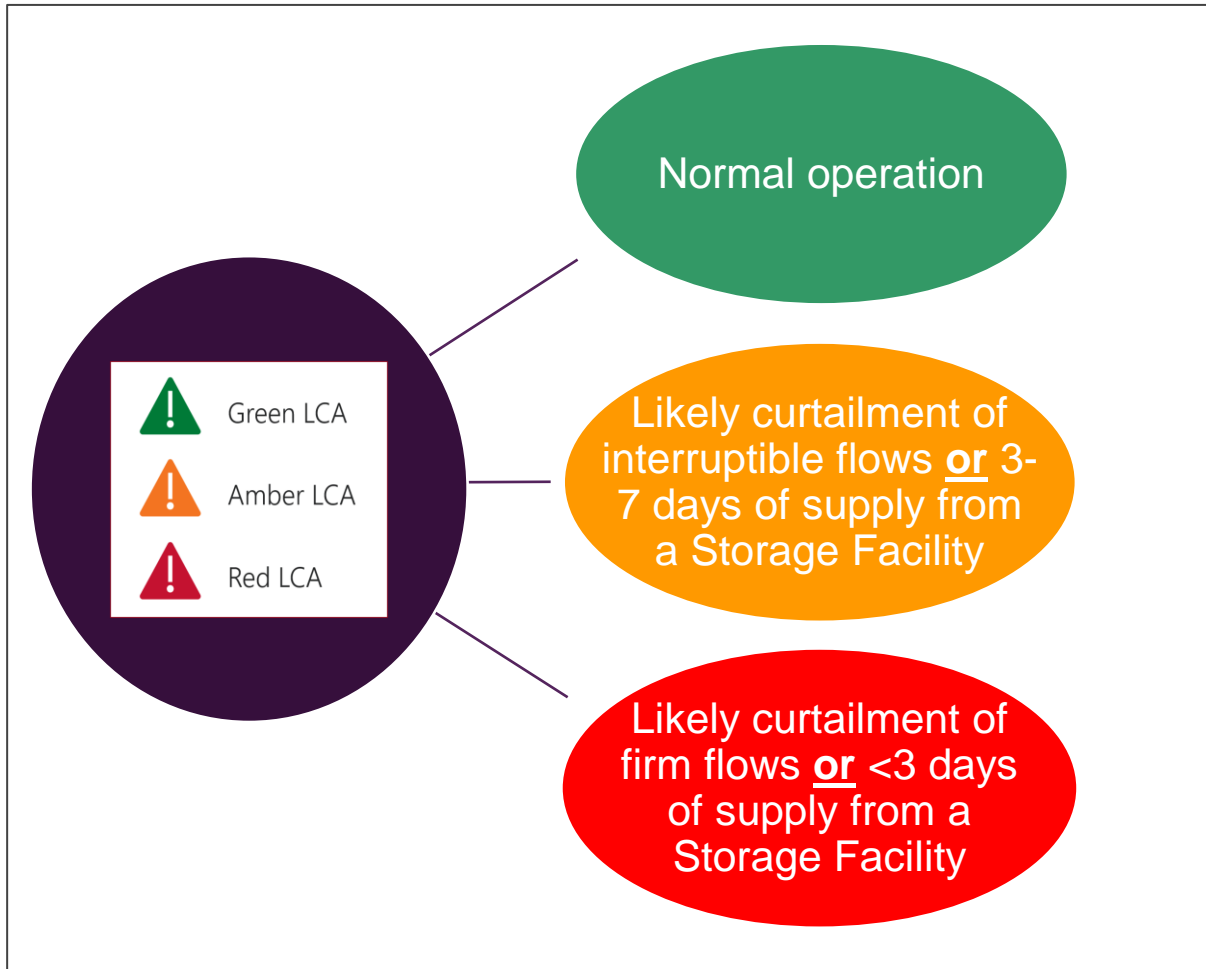
[Capacity Outlook Report](#)

Registration Activity



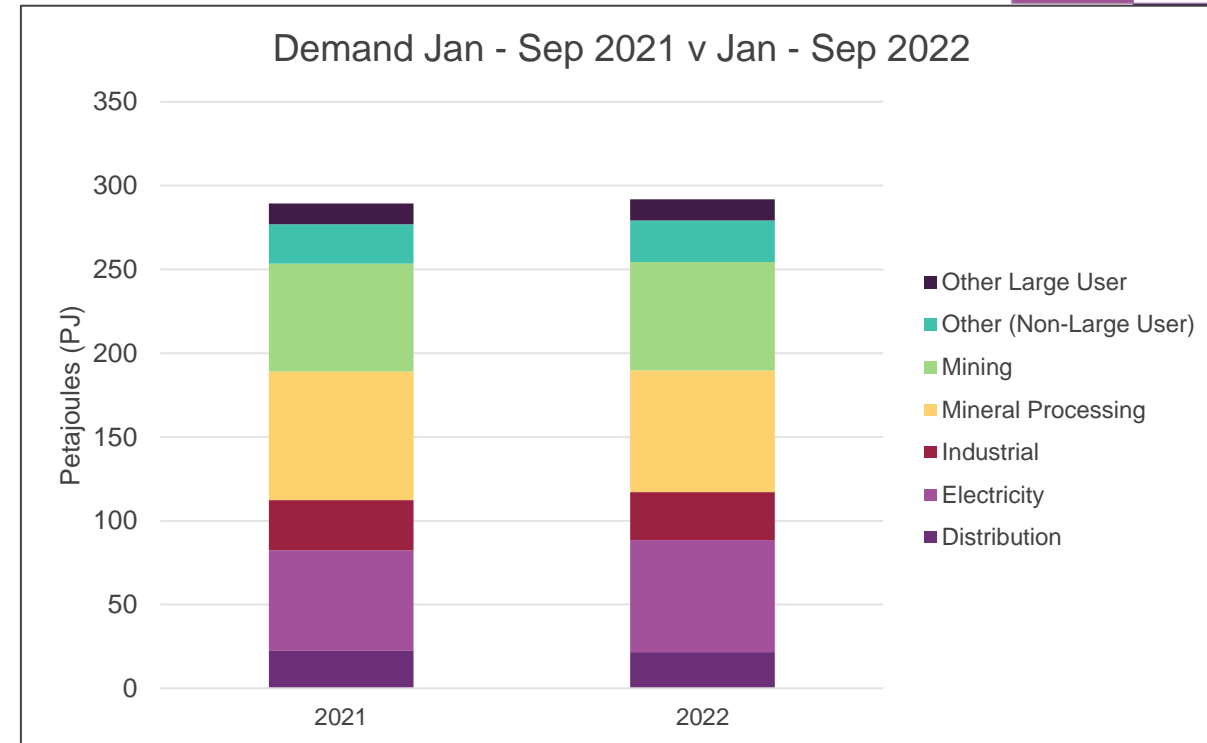
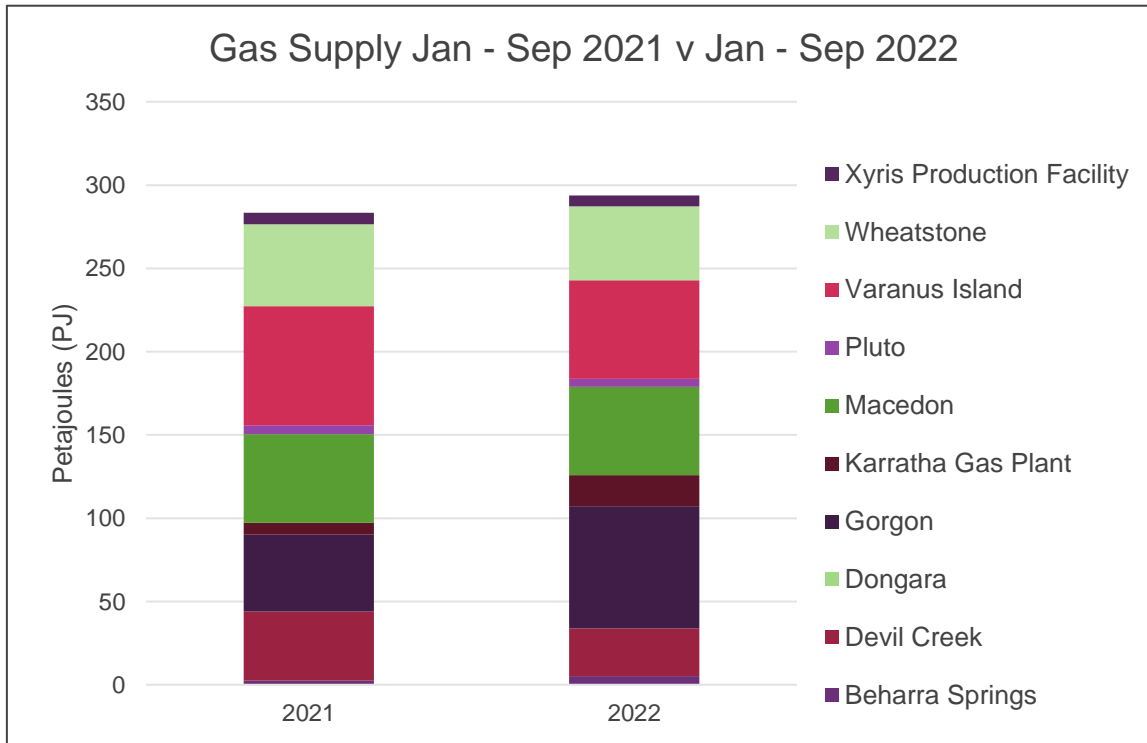
2022 Observations

Linepack Capacity Adequacy



2022 Observations

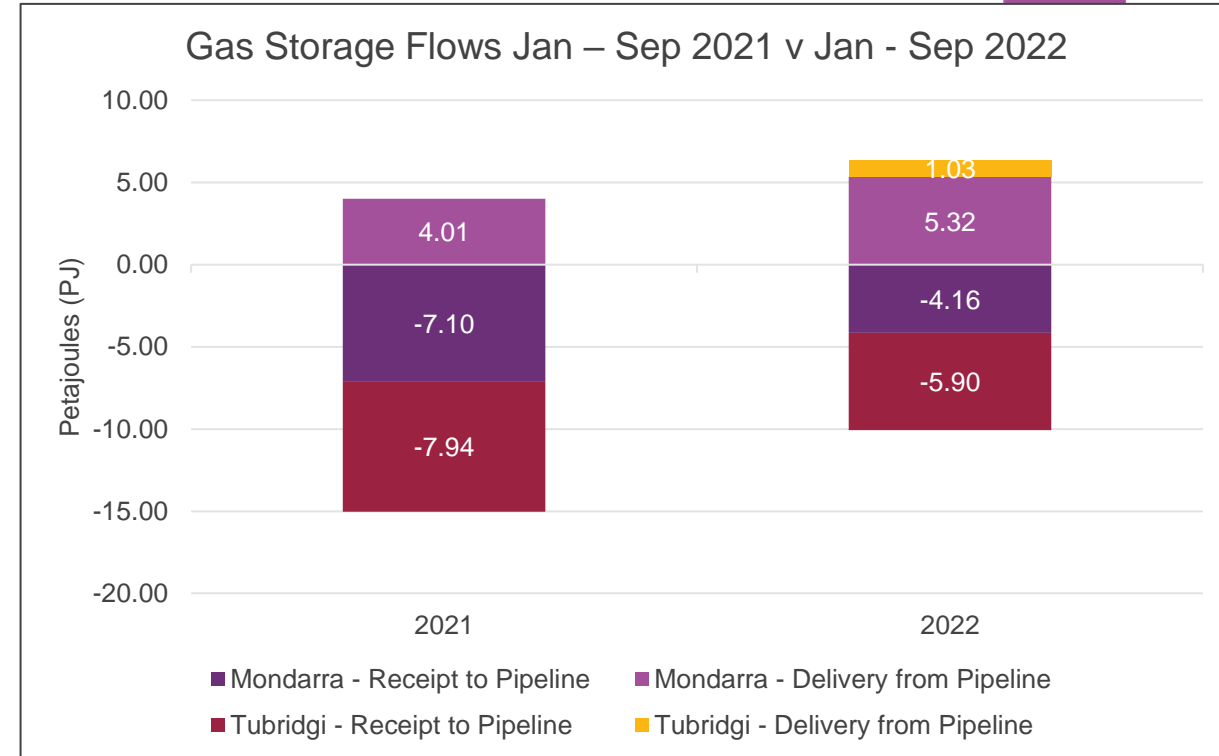
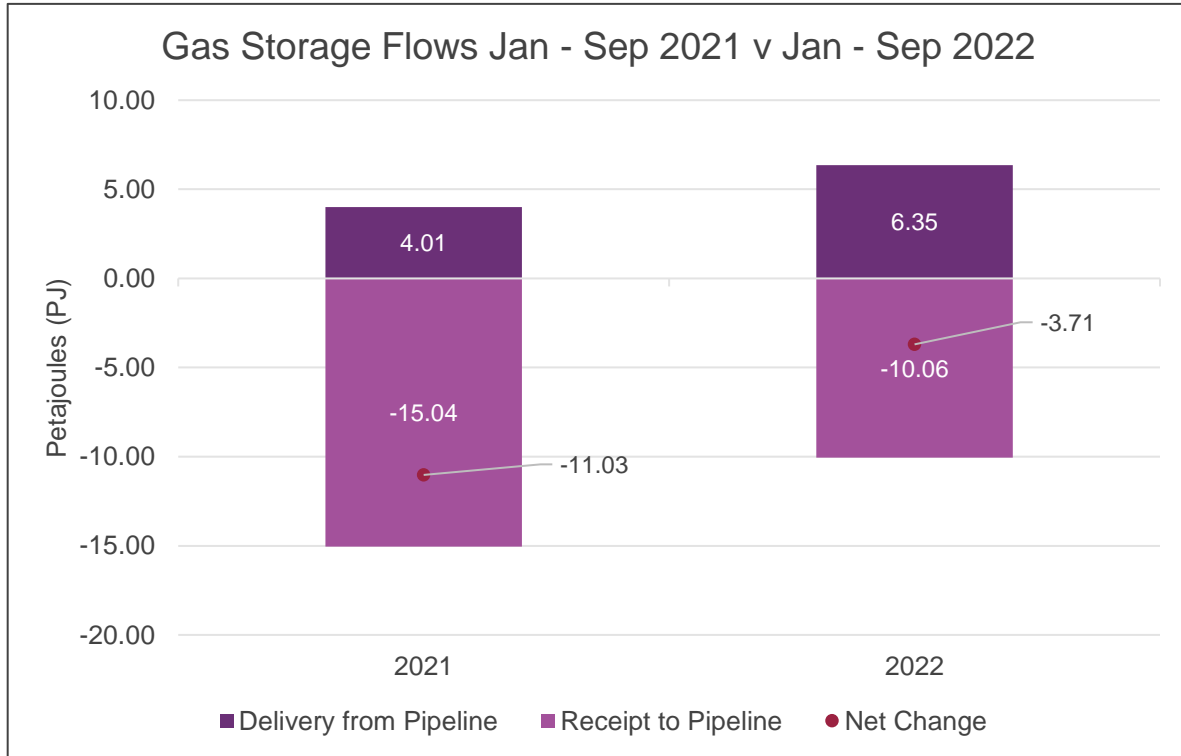
Gas Supply and Demand



Key Observations

- Total Gas supply increased by approximately 3.6%, exceeding total gas demand by 2 PJ, excess gas production is accounted for through daily changes in storage flows and line pack.
- Consumption for electricity generation increased by 11.5% with small reductions from industrial and mineral processing.

2022 Observations Storage



Key Observations

- Net 3.7 PJ of gas flow from Storage Facilities into Pipelines over 2022, a 66% decrease from 2021.
- Net flow of gas from Mondarra Storage Facility decreased by 41% compared to 2021.
- Tubridgi had net delivery from Pipelines of 1.03 PJ compared to 0 PJ in 2021.

2023 WA GSOO review

Consultation on GSOO information

Section 105 of the GSI Rules

(1) AEMO must, at least once in every five year period, conduct a review of the GSOO information. .

...

(2) The review must be carried out in consultation with Gas Market Participants and gas industry groups.

- The last review of the WA GSOO was in 2018
- AEMO proposes to begin the GSOO review in Q1 2023
- The review will be carried out in consultation with gas market participants and gas market groups

Questions and Feedback

Market Operations

wa.operations@aemo.com.au

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