

Victorian Gas Planning Report

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2021 Winter Outlook Presentation

Important Notice

Purpose

AEMO has prepared this presentation material to provide information about the operation of the Victorian gas transmission system and the market operational strategies for Winter 2021, as at the date of publication.

Disclaimer

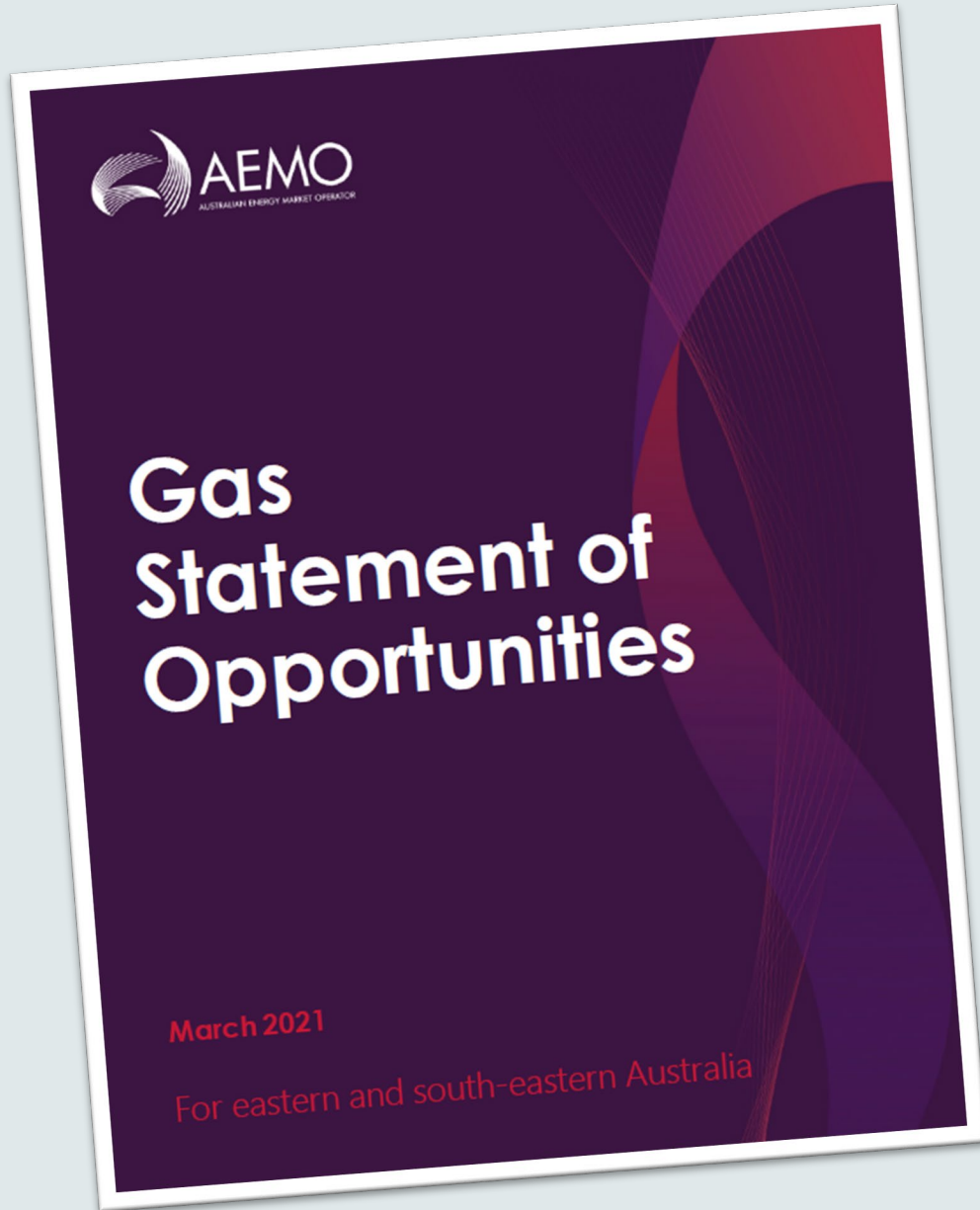
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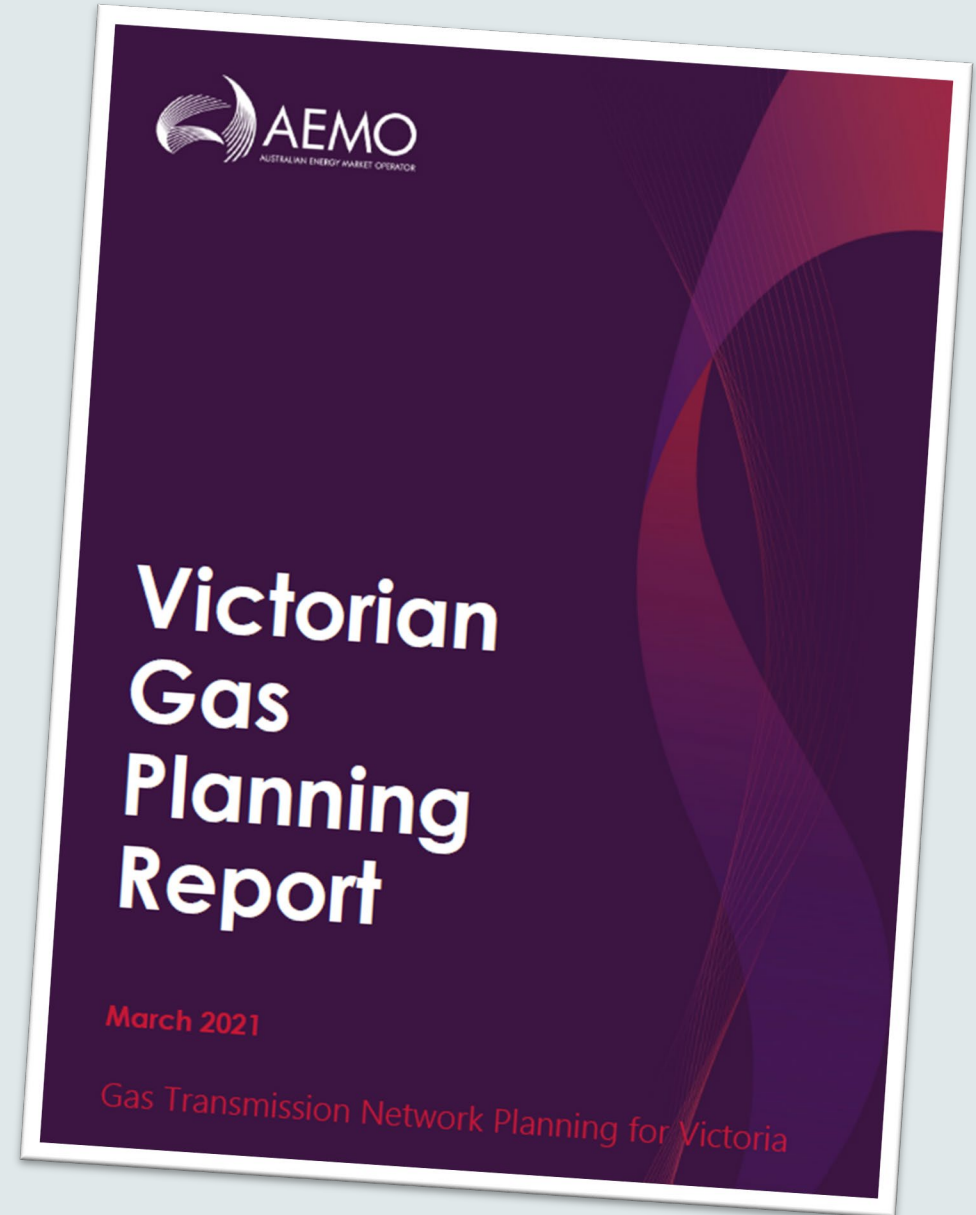
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Available here: <https://aemo.com.au/en/energy-systems/gas/gas-forecasting-and-planning/gas-statement-of-opportunities-gsoo>



Available here: <https://aemo.com.au/en/energy-systems/gas/gas-forecasting-and-planning/victorian-gas-planning-report>

Current east coast supply

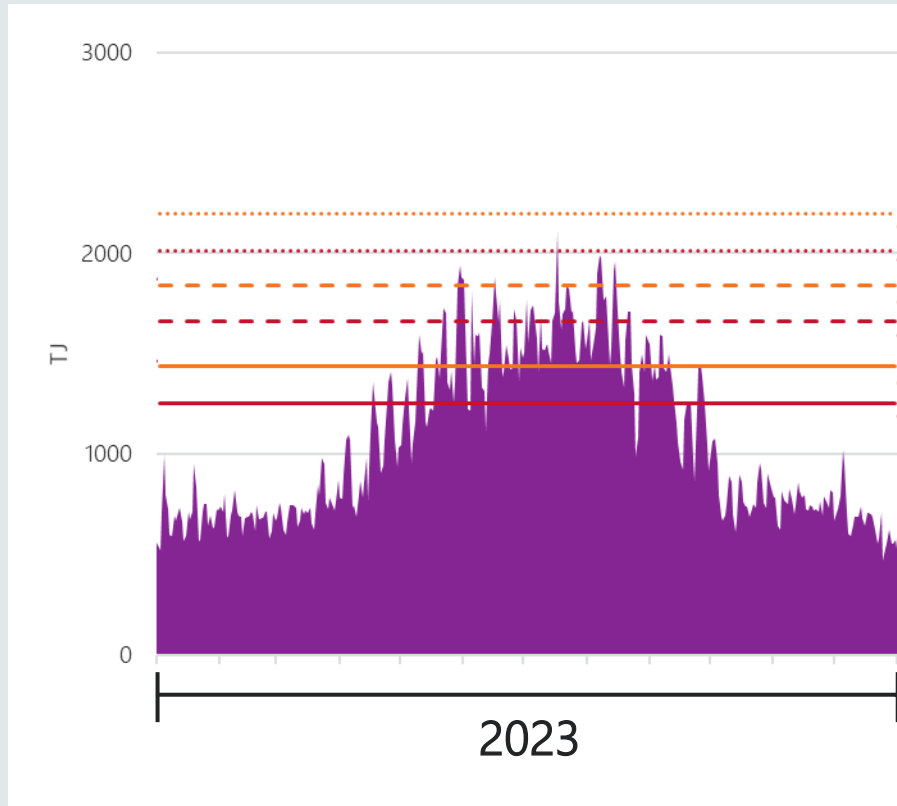
Summer: Victoria gas
supplies south-east coast

Shoulder: supported by
Queensland

Winter: Victorian gas
exports reduced, and
Northern supply increases



Current east coast outlook

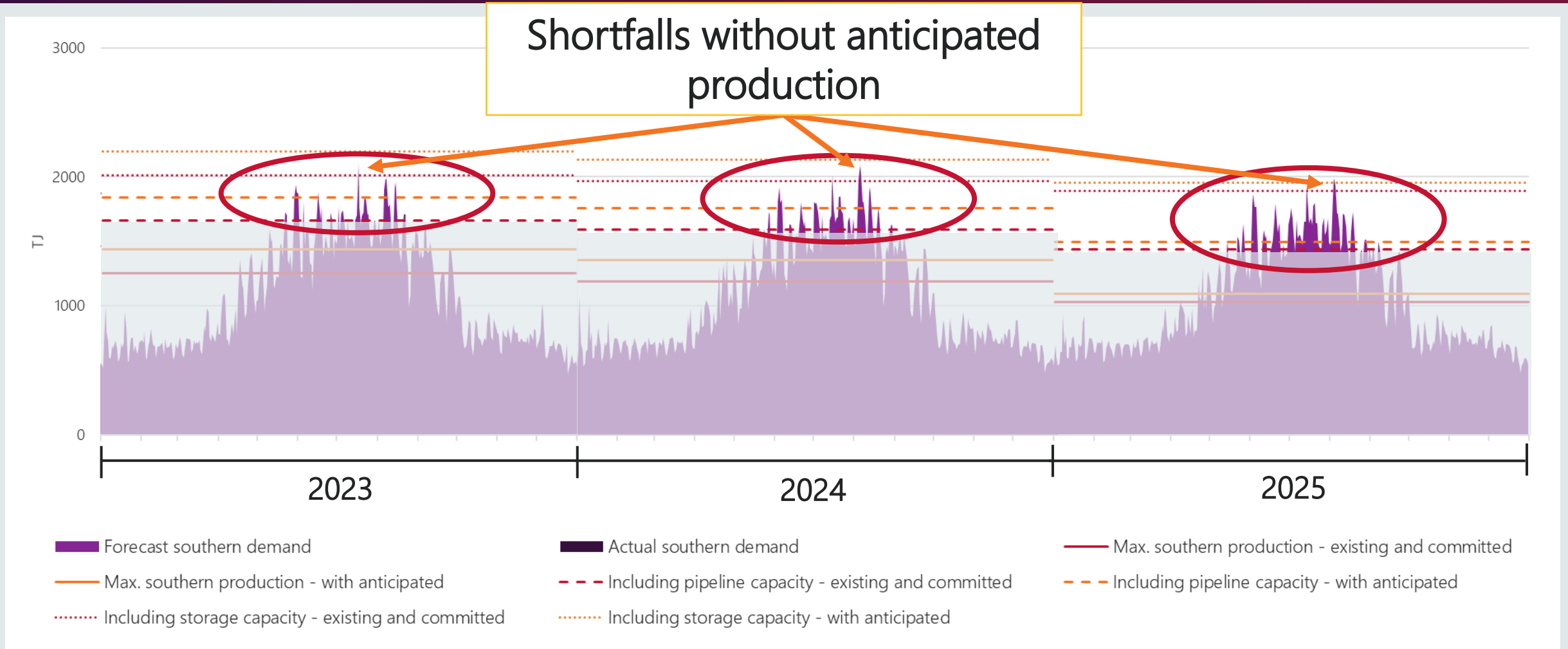


Supply including storage capacity
Supply including pipeline capacity
Max. southern production

Forecast southern demand

- Forecast southern demand
- Max. southern production - with anticipated
- Including storage capacity - existing and committed
- Actual southern demand
- Including pipeline capacity - existing and committed
- Including storage capacity - with anticipated
- Max. southern production - existing and committed
- Including pipeline capacity - with anticipated

Current east coast outlook



Future east coast supply

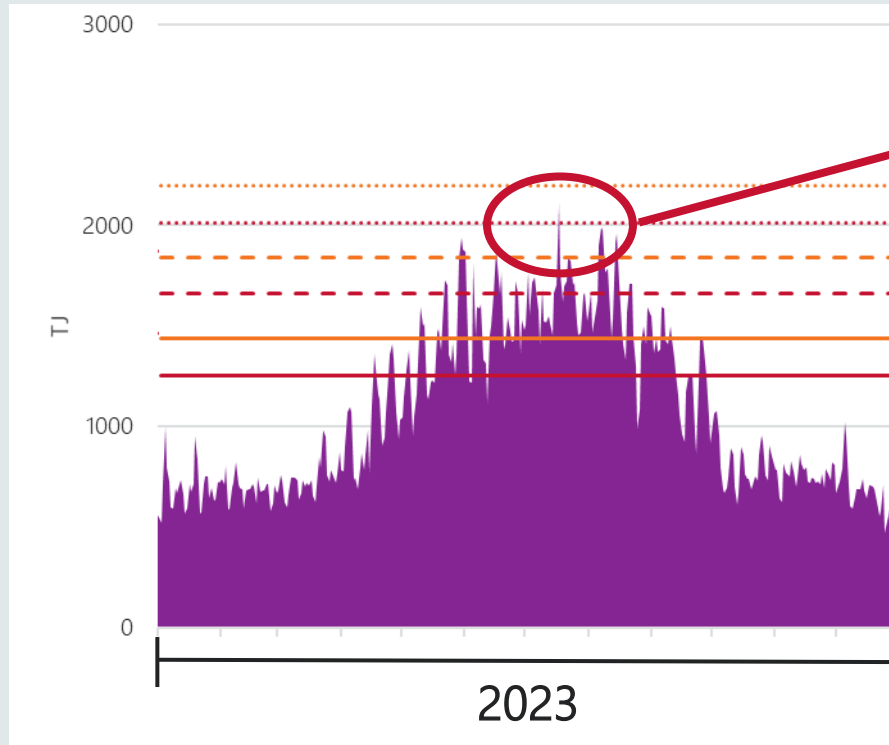
Declining south-east production

- Reliant on constrained Queensland supply
- Port Kembla Gas Terminal (PKGT) alleviates peak day shortfalls
- System resilience risks remain

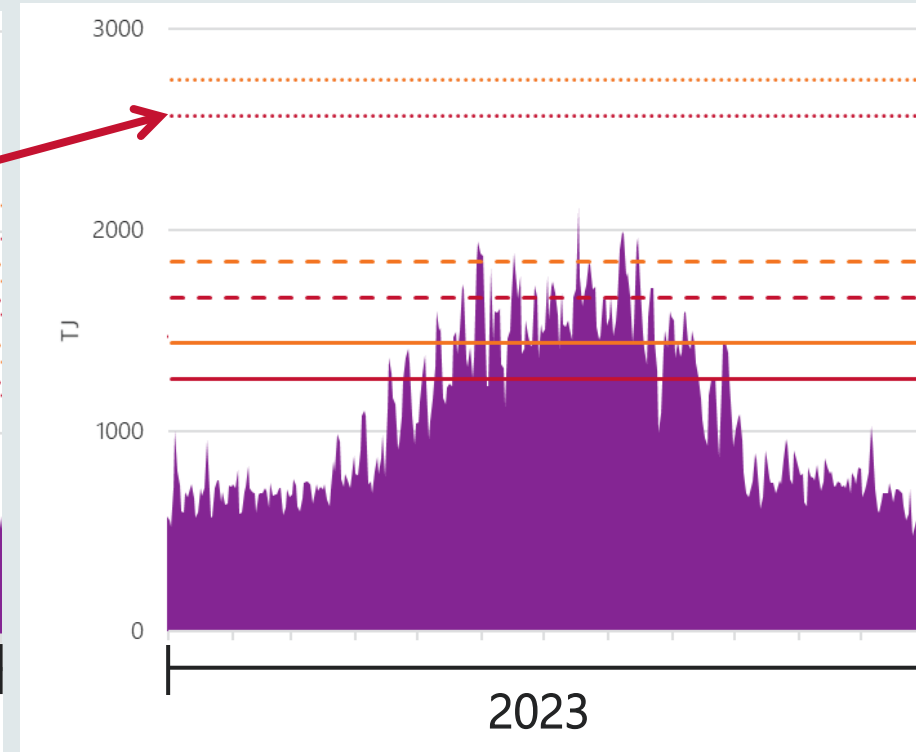


East coast outlook with PKGT

Current east coast outlook

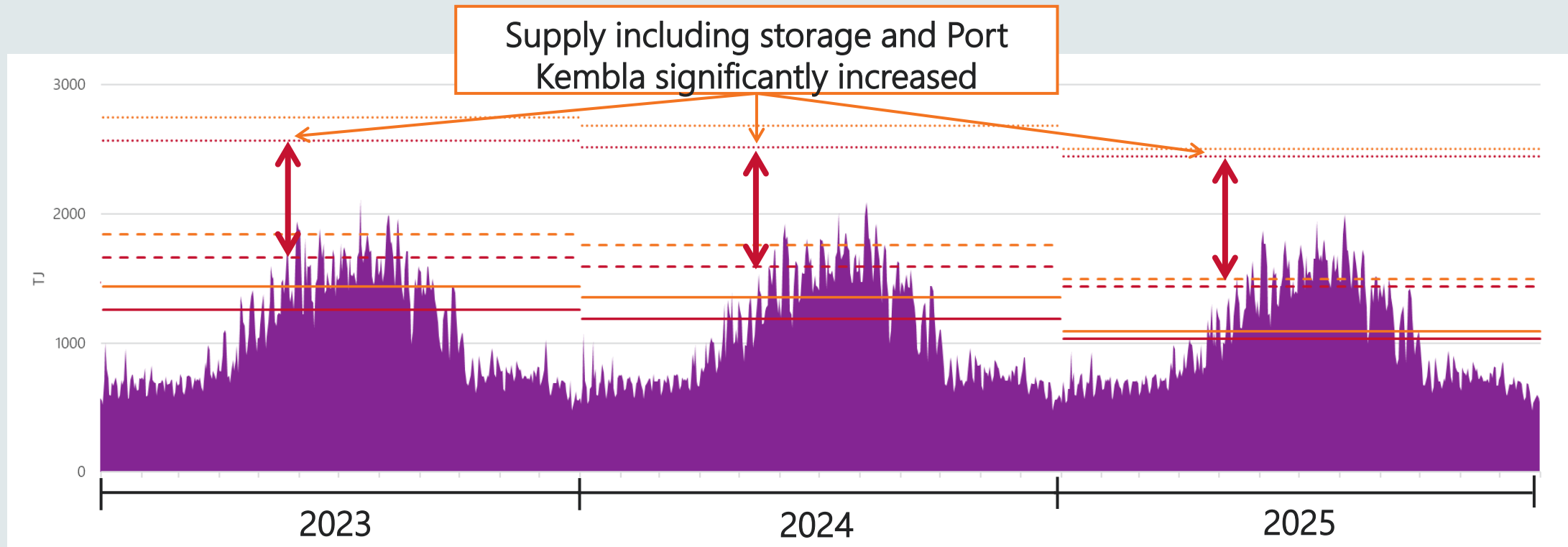


East coast outlook with Port Kembla



- Forecast southern demand
- Actual southern demand
- Max. southern production - existing and committed
- Max. southern production - with anticipated
- Including pipeline capacity - existing and committed
- Including pipeline capacity - with anticipated
- Including storage capacity - existing and committed
- Including storage capacity - with anticipated

East coast outlook with PKGT

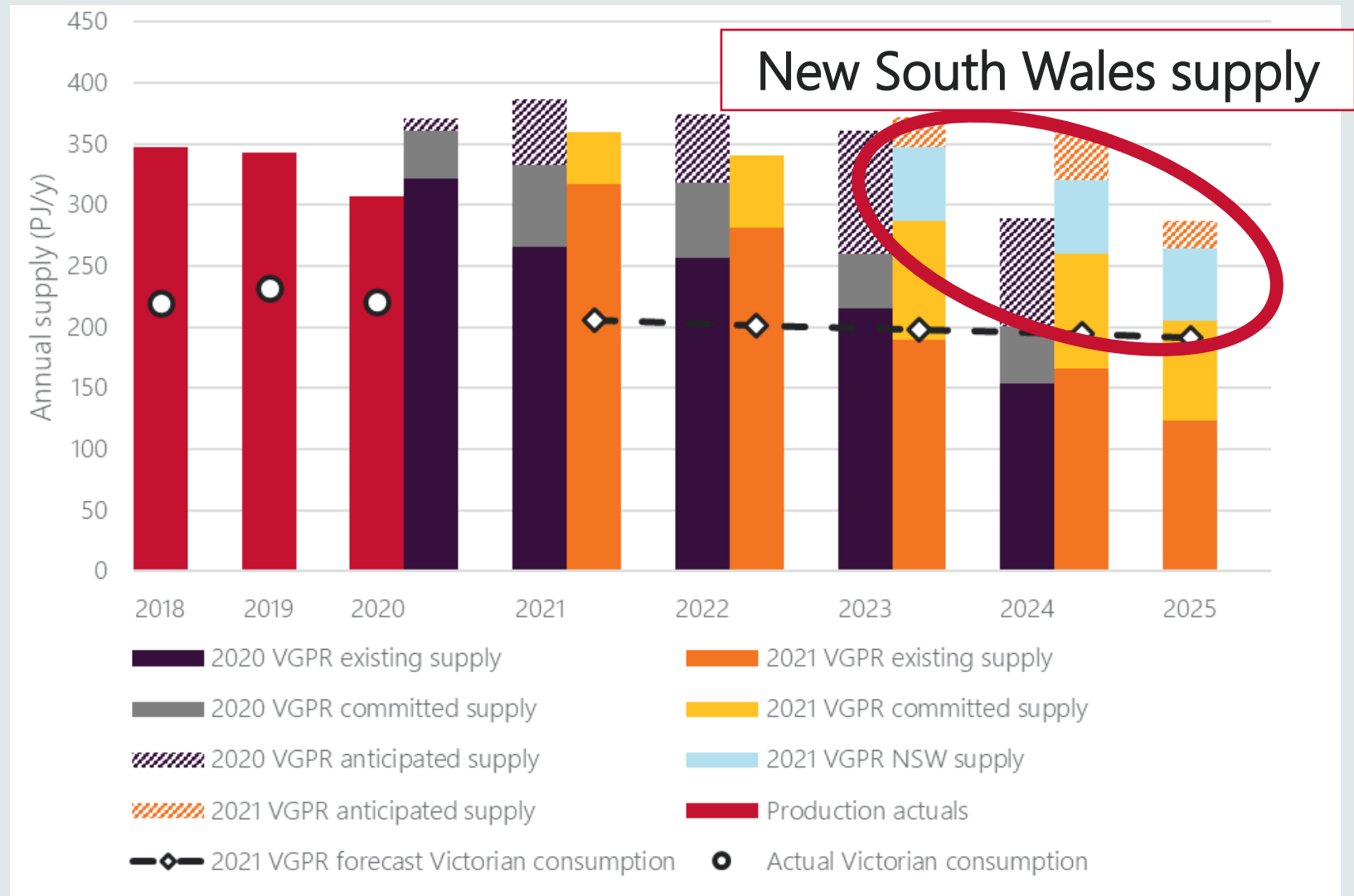


- Forecast southern demand
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Victorian supply and demand

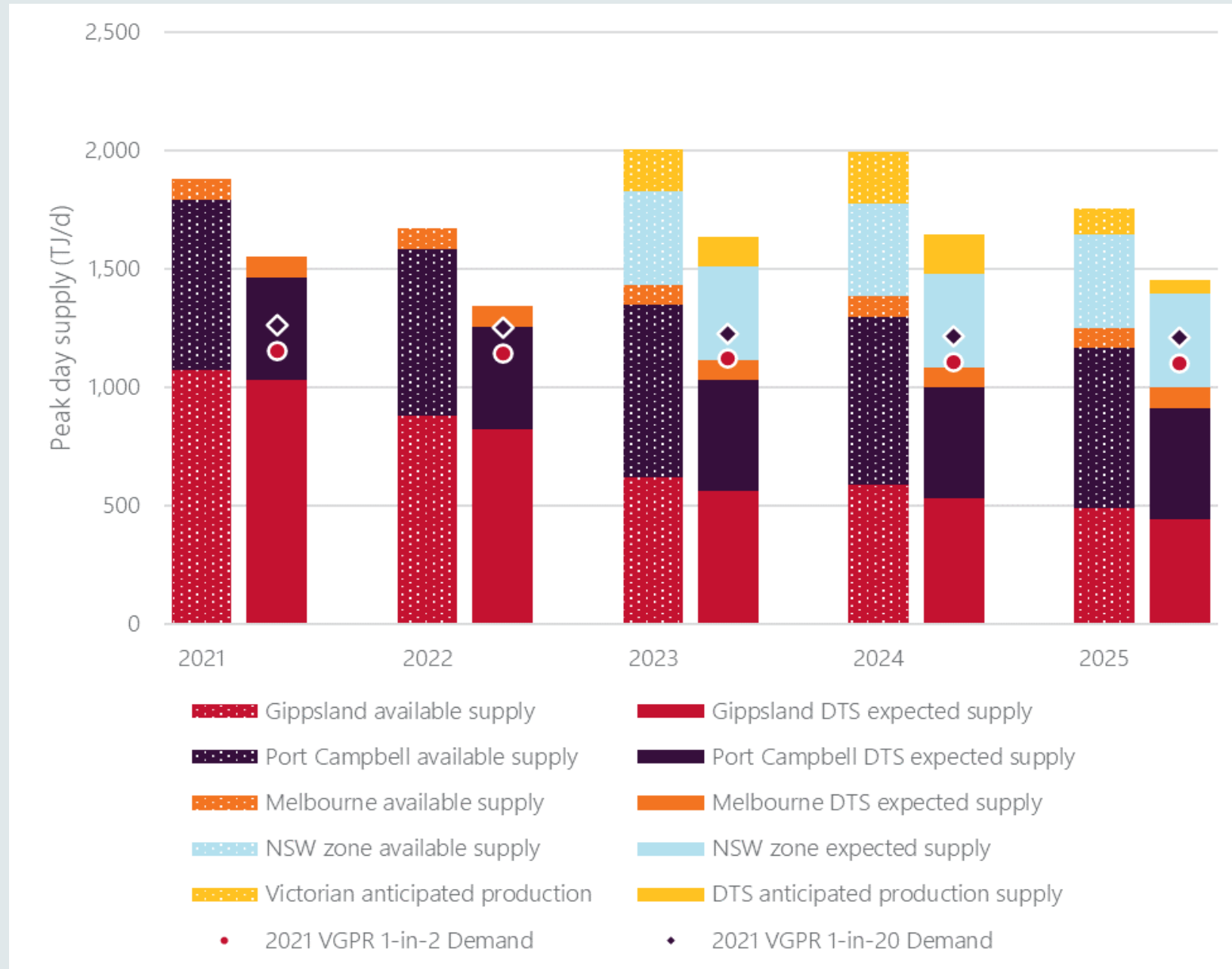
Victorian annual production outlook

- 34% decline in annual Victorian production
- 60 PJ/y into VIC from NSW supply



Victorian peak day outlook

- Supply capacity declining 38% from 1,585 TJ/d in 2021 to 983 TJ/d in 2025
- DTS expected supply accounts for DTS capacity
- From 2023, Victorian demand reliant on NSW supply
- By 2025, NSW supply is required even with anticipated production

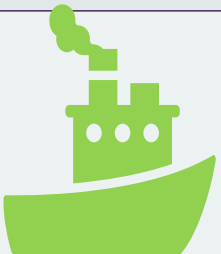


Future supply sources



Supply projects

- Golden Beach
- Kipper gas field
- Enterprise field



LNG import terminals

- Viva at Lara
- Vopak at Avalon



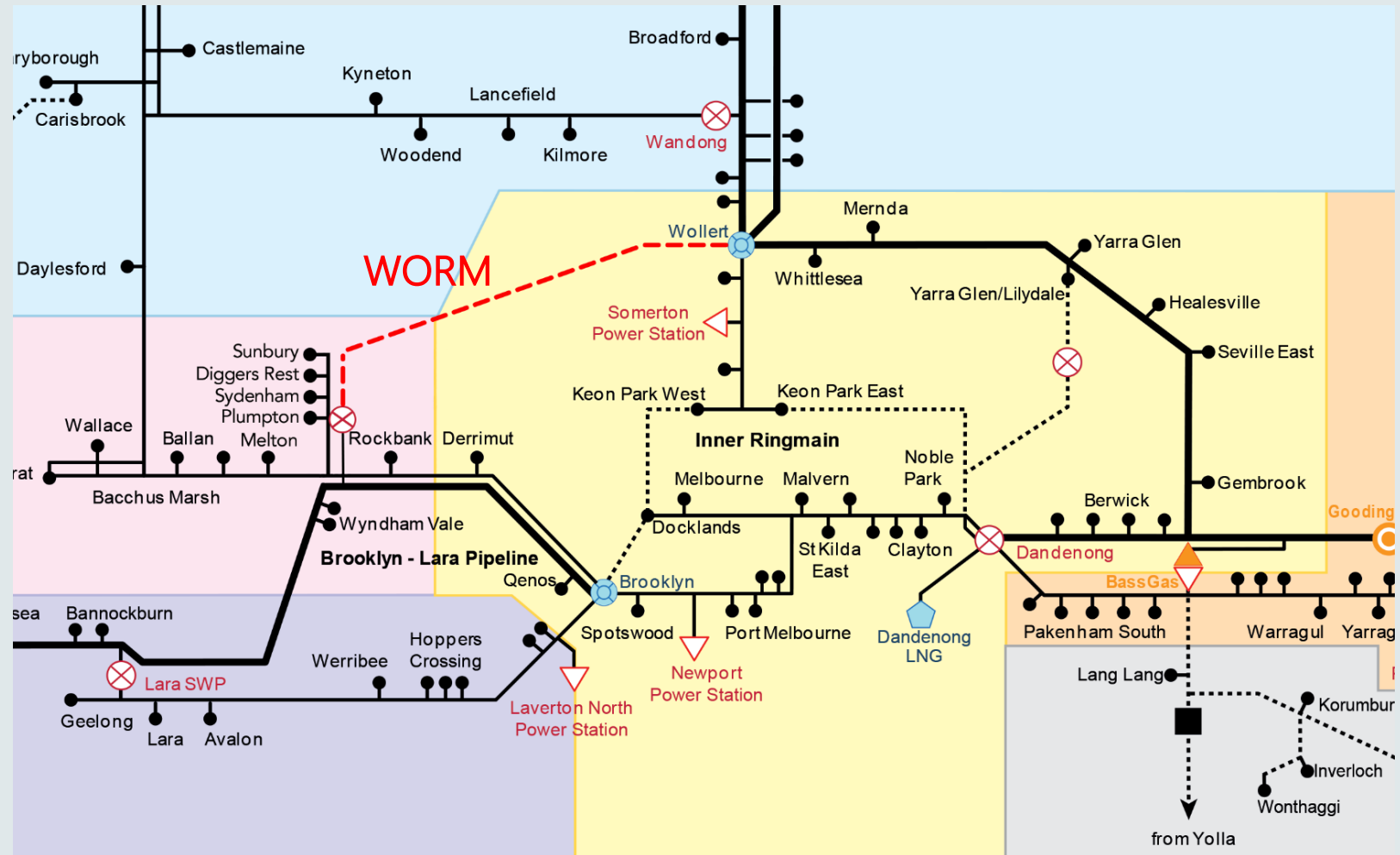
Other

- Port Campbell supply constrained (i.e SWP pipeline)
- Additional supply from PKGT – Jemena upgrade
- Increased supply from Queensland
- Distributed gas supply (i.e hydrogen)

Upcoming and proposed DTS projects

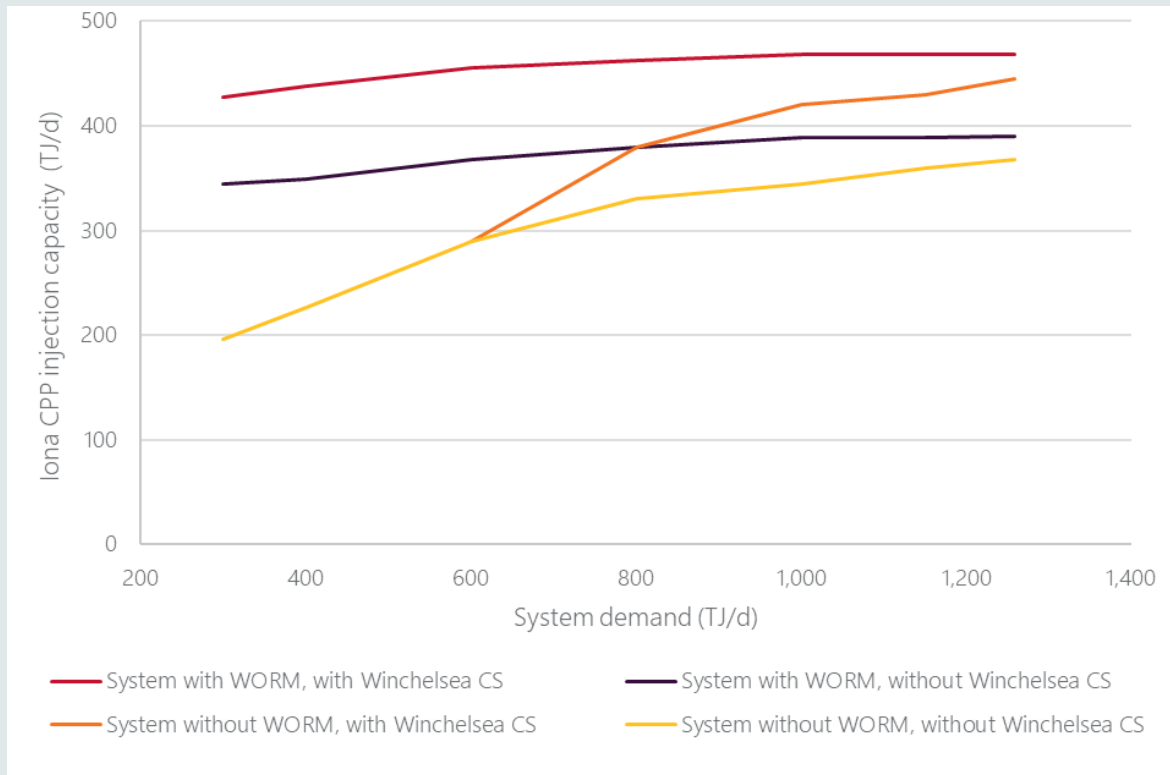
Western Outer Ring Main (WORM)

Allows gas flow around Melbourne at high pressure

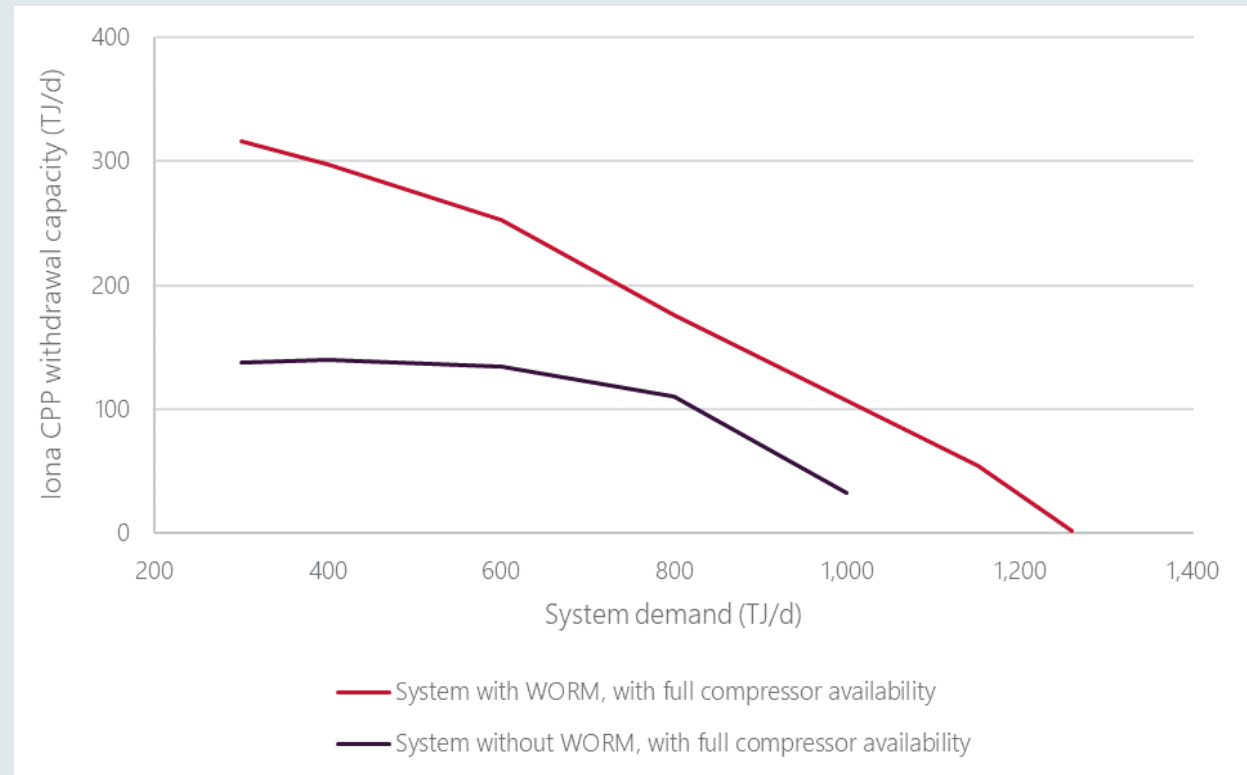


Western Outer Ring Main

WORM SWP injections



WORM SWP withdrawals

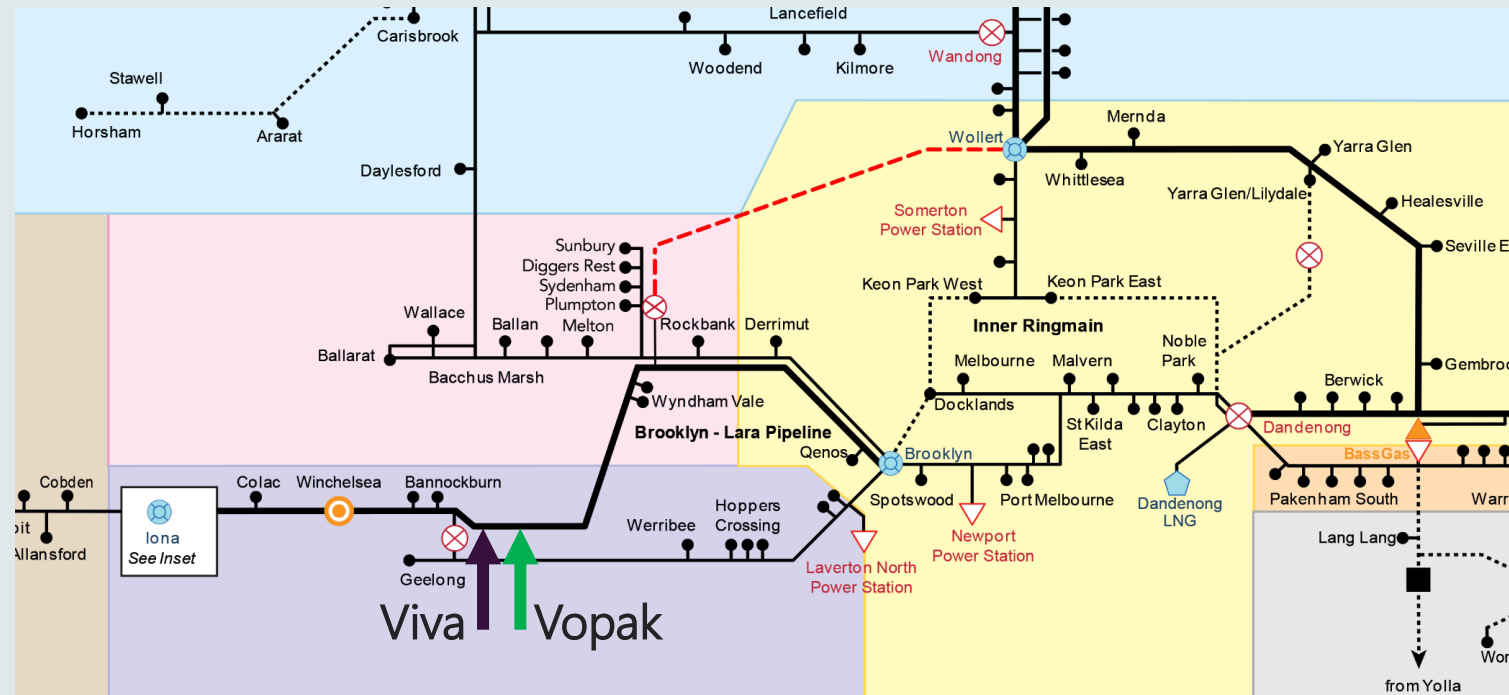


LNG import terminals

Viva Energy
at Lara

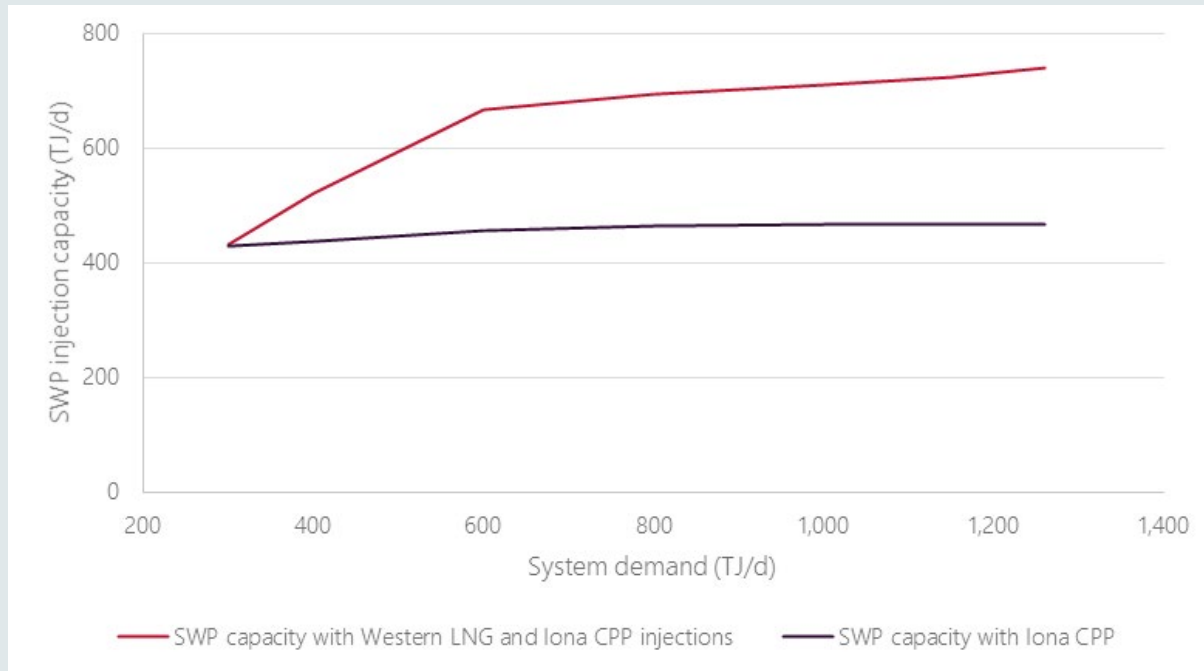
Vopak
at Avalon

MDQ
~600 TJ/d

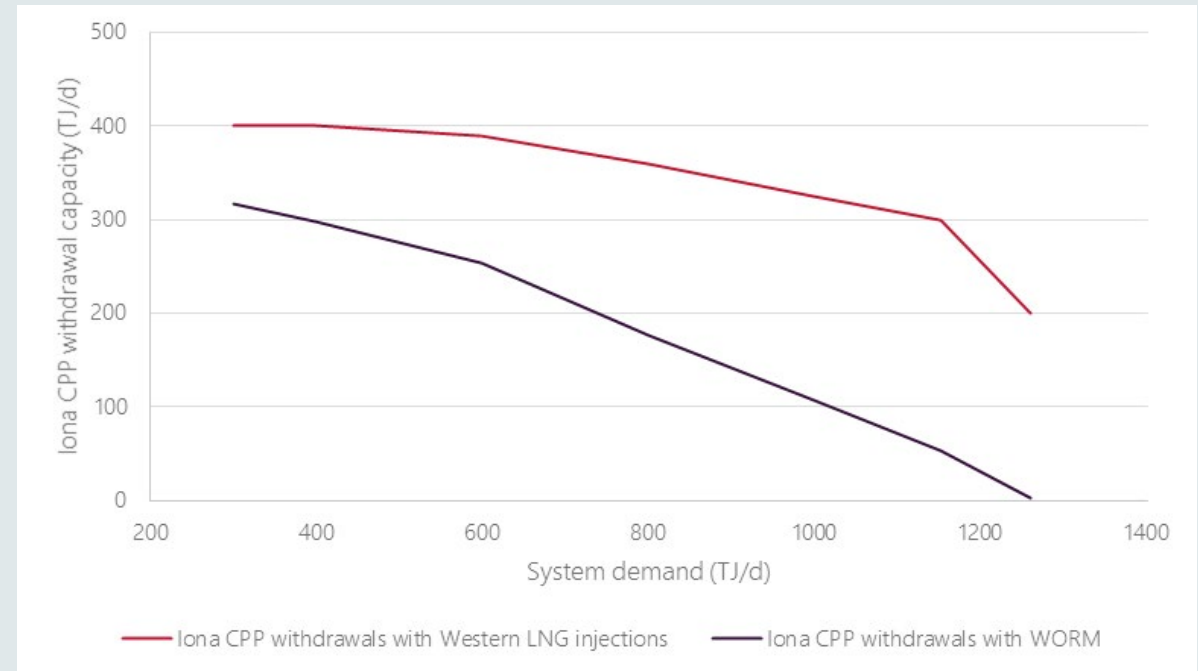


Western LNG import terminals


Western LNG – SWP injections



Western LNG – SWP withdrawals



Threat to System Security



Notice of a Threat to System Security – Seeking a Market Response

Reference: *National Gas Rules (NGR), Part 19, Division 5, Subdivision 5, Notice of Threat to System Security*

Under rule 341 of the NGR, AEMO is notifying participants of a threat to system security in the Declared Transmission System, identified in the Victorian Gas Planning Report 2021 (Available here: <https://aemo.com.au/energy-systems/gas/gas-forecasting-and-planning/victorian-gas-planning-report>).

From the information provided by registered participants and modelling conducted by AEMO for the 2021 VGPR, there is forecast to be insufficient contracted Dandenong LNG inventory available for all operational and emergency scenarios, leading to an increased risk of curtailment during winter 2021 onwards unless the LNG inventory stored within the tank is higher than current contracted levels.

The threat to system security is likely to impact:

<input checked="" type="checkbox"/> Total System	<input type="checkbox"/> Melbourne Withdrawal Zone
<input type="checkbox"/> Gippsland Withdrawal Zone	<input type="checkbox"/> Northern Withdrawal Zone
<input type="checkbox"/> Geelong Withdrawal Zone	<input type="checkbox"/> Ballarat Withdrawal Zone
<input type="checkbox"/> Western Withdrawal Zone	

If the Dandenong LNG inventories are reduced to the current contracted level, the threat to system security is expected to start from 01/05/2021, or a revised time that may be advised by AEMO. At this stage it is not possible to estimate an end date.

A market response (per rule 342 of the NGR) to this notice may alleviate the threat to system security and remove the need for AEMO to take action. Market participants are asked to re-evaluate their market positions.

AEMO hydraulic modelling indicates that approximately 140 TJ of inventory is required to be reserved in the tank for an emergency system shutdown scenario. This is necessitated by the Gas Safety Act, which requires AEMO as the network operator to minimise risks to safety that arise due to interruptions or the reinstatement of gas supply as far as reasonably practicable.

Using a two stage process of hydraulic modelling combined with probabilistic modelling, AEMO has determined that to minimise the likelihood of curtailment, approximately 110 TJ of LNG inventory would be required in addition to the emergency shutdown quantity. This LNG is to manage operational and market responses during periods of high unforecast demand or supply disruptions that would be threats to system security but not an emergency.

- There will be a market notice to advise the removal of the threat to system security.
- AEMO reserves the right to determine an appropriate operational response if the market response is insufficient to avert the threat to system security.

Issued on 29/03/2021

