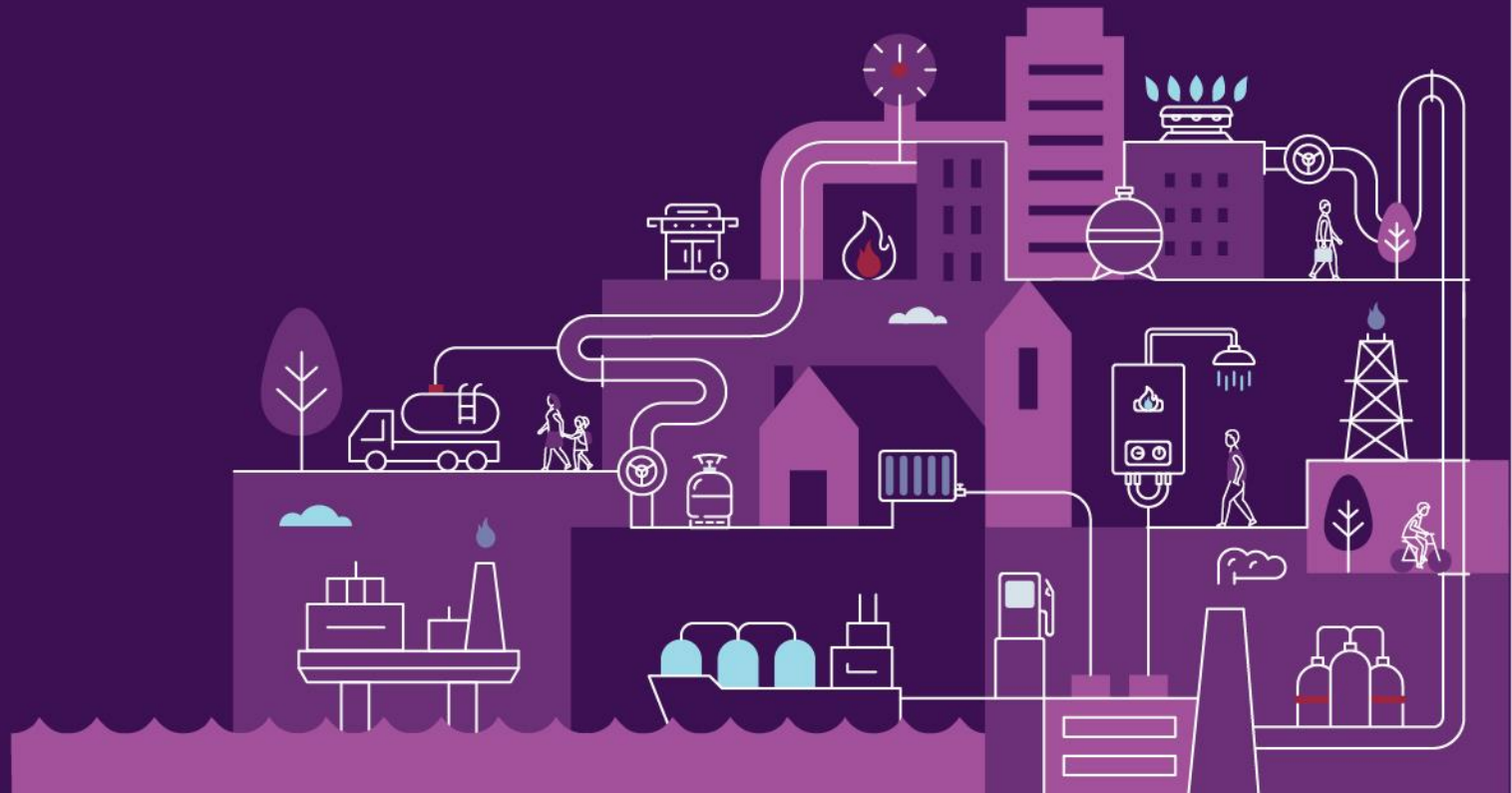
2024 Gas Statement of Opportunities (GSOO)

Publication Webinar

21 March 2024

Please note that this webinar will be recorded and published online.



We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

We pay respect to Elders past and present.

Agenda

- Welcome and Introduction
- Summary of key messages
- Gas consumption forecasts
- Gas supply outlook
- Adequacy assessment
- Future supply, transportation and storage options
- Q&A

How to interact today

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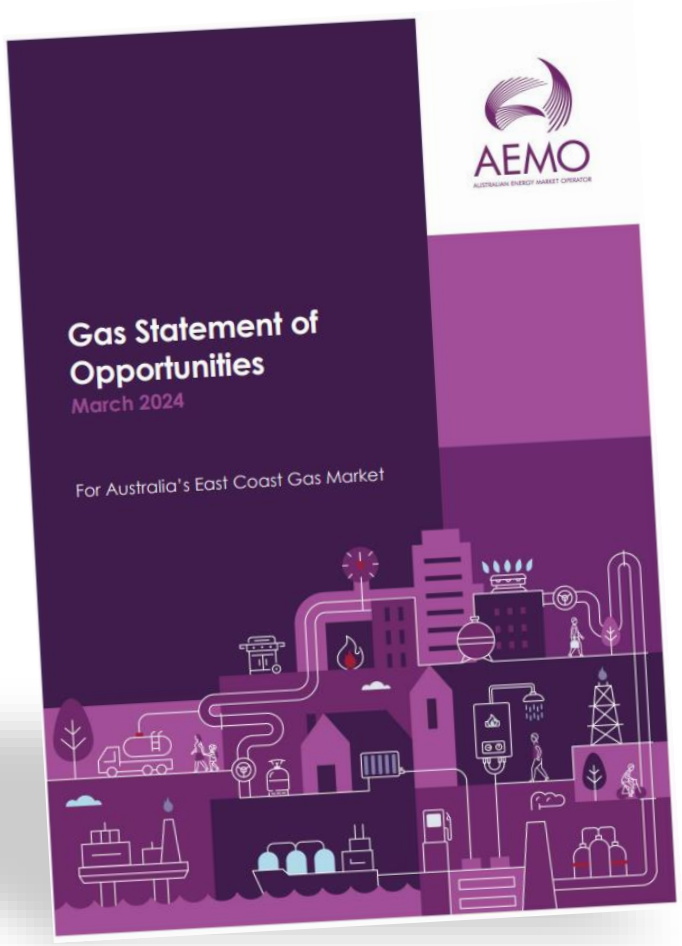
- Please ask question using Slido
  - Either open the Slido tab at the top of your Teams window
  - Or open www.sli.do #GSOO
- Up-vote questions that you are interested in
- Written replies may be provided through Slido if appropriate
- AEMO will not provide responses to unanswered questions

2024 Gas Statement of Opportunities



- Forecasts the adequacy of gas supplies in central and eastern Australia to inform decisions about investment in the East Coast Gas Market (ECGM)
- Based on information provided by gas industry participants
- Meets the changing energy needs of households and businesses from now to 2043

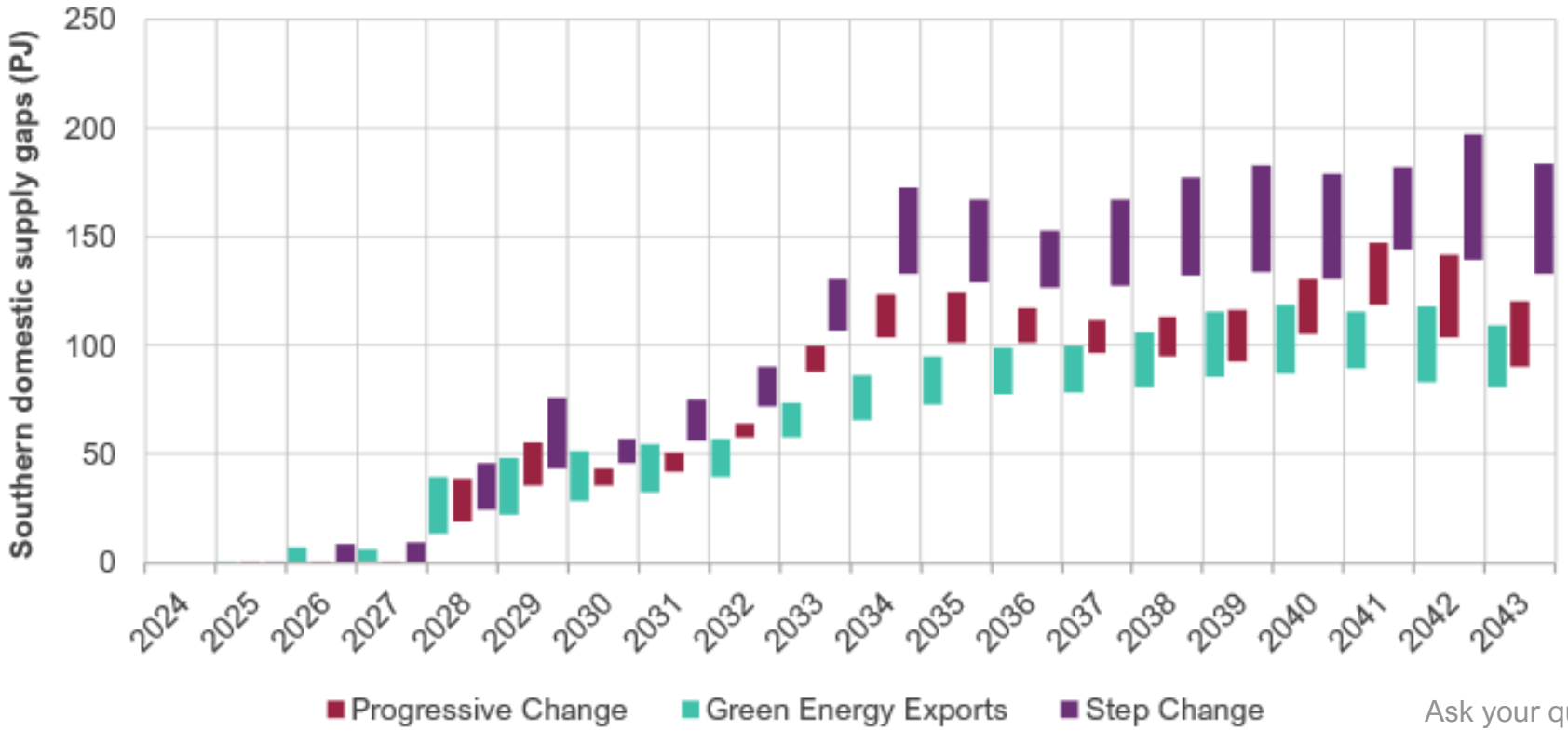
Key insights

- During Australia's transition to net zero emissions, gas will continue to be used by Australian households, businesses and industry, and support the reliability and security of the electricity sector.
- **Small seasonal supply gaps are forecast to emerge from 2026** under sustained high gas demand conditions, one year earlier than forecast in the 2023 GSOO.
- **Structural annual supply gaps are forecast from 2028**:
  - Residential, commercial and industrial customer forecast demand has reduced since the 2023 GSOO.
  - Coal availability (based on Draft 2024 ISP timing) is a key influence on the forecast utilisation of GPG.
  - Southern forecast annual production is similar to the 2023 GSOO, declining over the near 5 years.
- **Peak day shortfall risks emerge in 2025**, two years later than forecast in the 2023 GSOO.
  - Forecast peak day demand has reduced in comparison to the 2023 GSOO.
  - Peak day production capacity from committed and anticipated production has slightly improved.
- **A combination of supply developments are forecast to be needed to maintain supply adequacy.**

Emerging seasonal and annual supply gaps

- Small seasonal supply gaps are forecast in 2026 and 2027.
- From 2028 supply gaps increase significantly due to falling southern production.

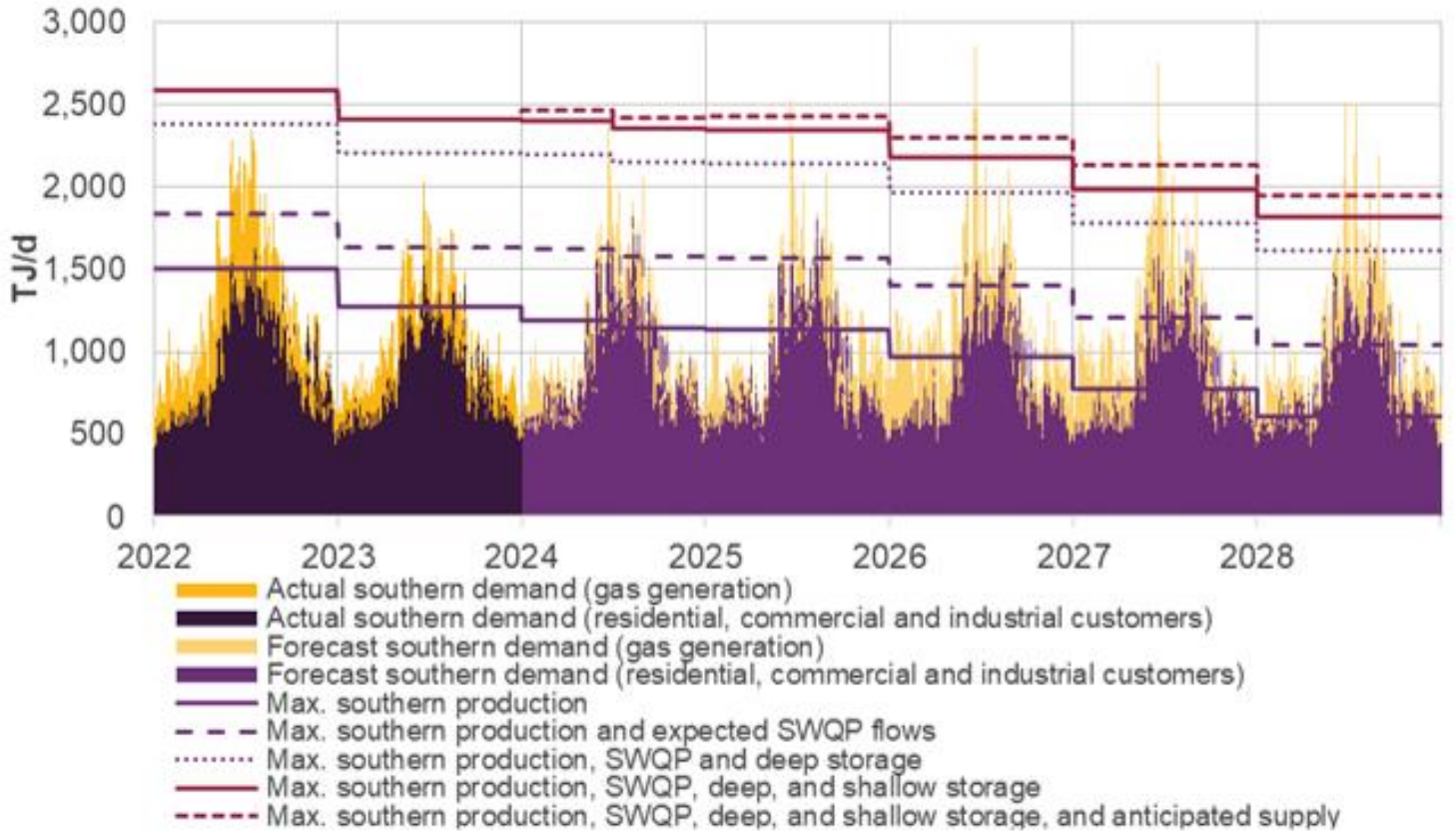
Figure 38 Range of domestic annual supply gaps forecast in southern regions based on existing, committed, and anticipated developments, all scenarios, 2024-43 (PJ)



Risk of southern peak day shortfalls

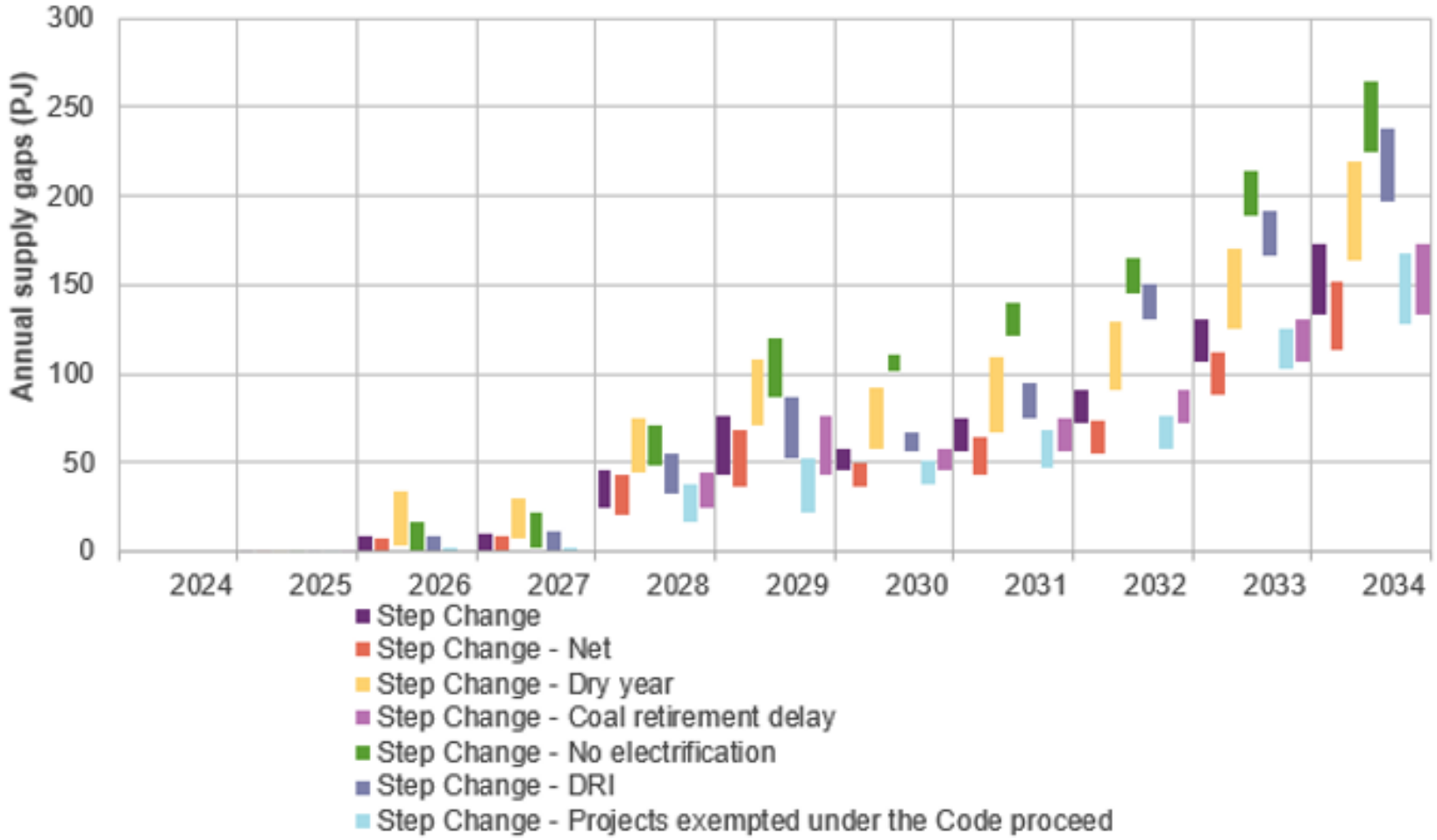
- **Extreme peak demand days are at risk of shortfall from 2025**
  - **2 years later than the 2023 GSOO.**
  - Deep and shallow storages are critical to meet peak demand
- Near-term solutions to manage shortfall risks:
  - Delivering committed and anticipated supply and infrastructure developments
  - Maintaining sufficient inventory in all storages
  - Demand flexibility during times of peak gas demand (including using secondary fuels for GPG)

Figure 4 Actual and forecast peak southern daily demand and gas supply using existing and committed projects, 2022-28 (TJ/d)



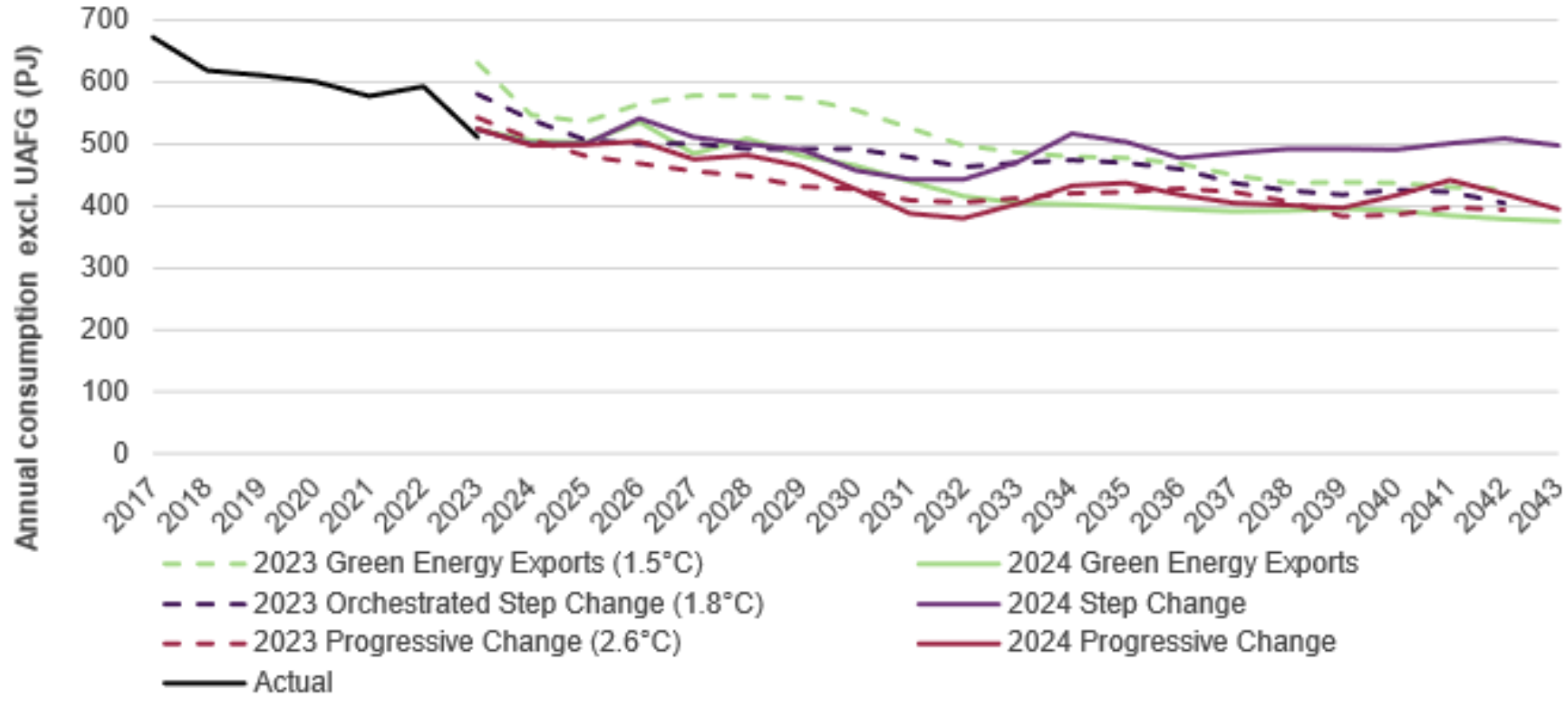
Adequacy under various market conditions

Figure 42 Forecast annual supply gaps for *Step Change* and other sensitivities, 2024-34 (PJ)



Domestic demand is forecast to reduce

Figure 11 Actual and forecast domestic gas consumption, all scenarios, and compared to 2023 GSOO scenarios, 2017-43 (PJ)



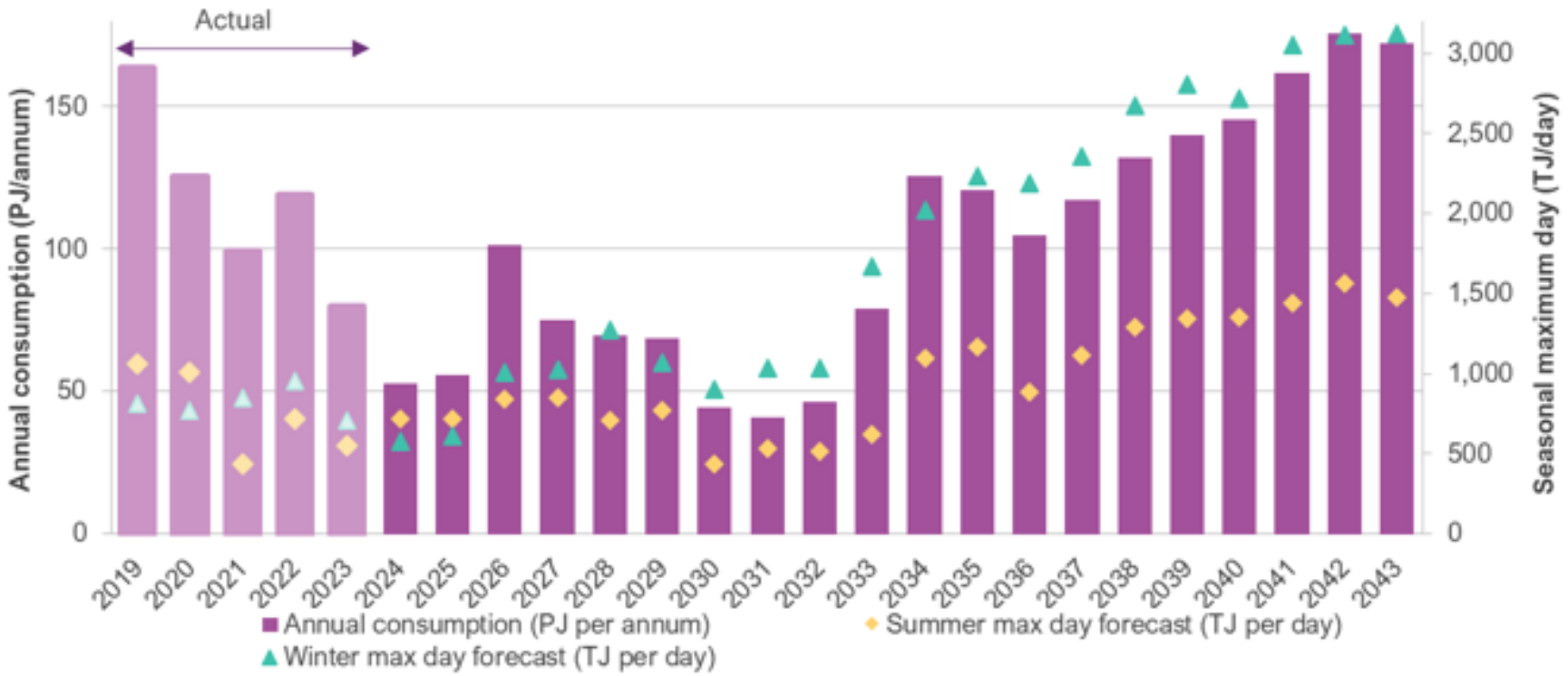
Notes:

- Forecasts assume demand is met by natural gas, and renewable gases if they are developed.
- Northern Territory domestic gas consumption is included from 2020 onwards. Northern Territory LNG forecasts are excluded.

GPG consumption is forecast to increase both annually and during peak periods

- GPG forecasts are consistent with the Draft 2024 ISP, which signals a key role for GPG to complement renewable energy developments.
- The Draft 2024 ISP reinforces the continued importance of GPG to the NEM to form part of a strategic energy reserve to cater for prolonged periods of low renewable energy output.
- Other forms of energy storage may also contribute to this strategic reserve, including diesel, hydrogen, batteries or pumped hydro.

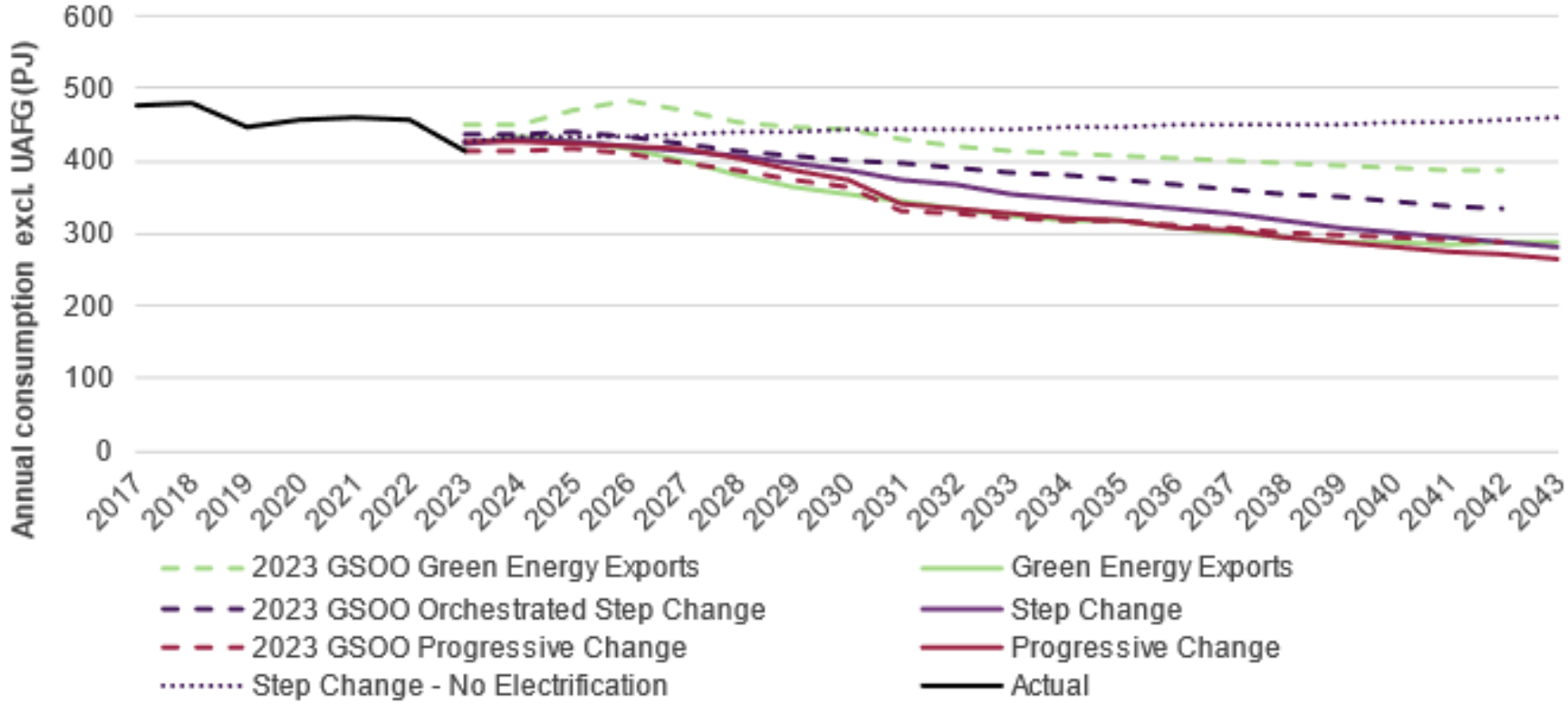
Figure 2 Actual and forecast NEM gas generation annual consumption (PJ per year (PJ/y)) and seasonal maximum daily demand (TJ/d), Step Change scenario, 2019-43



Gas consumption for commercial, residential and industrial users is forecast to decline

- Policy and market-driven electrification contributes to a downward trend in residential, commercial and industrial consumption.

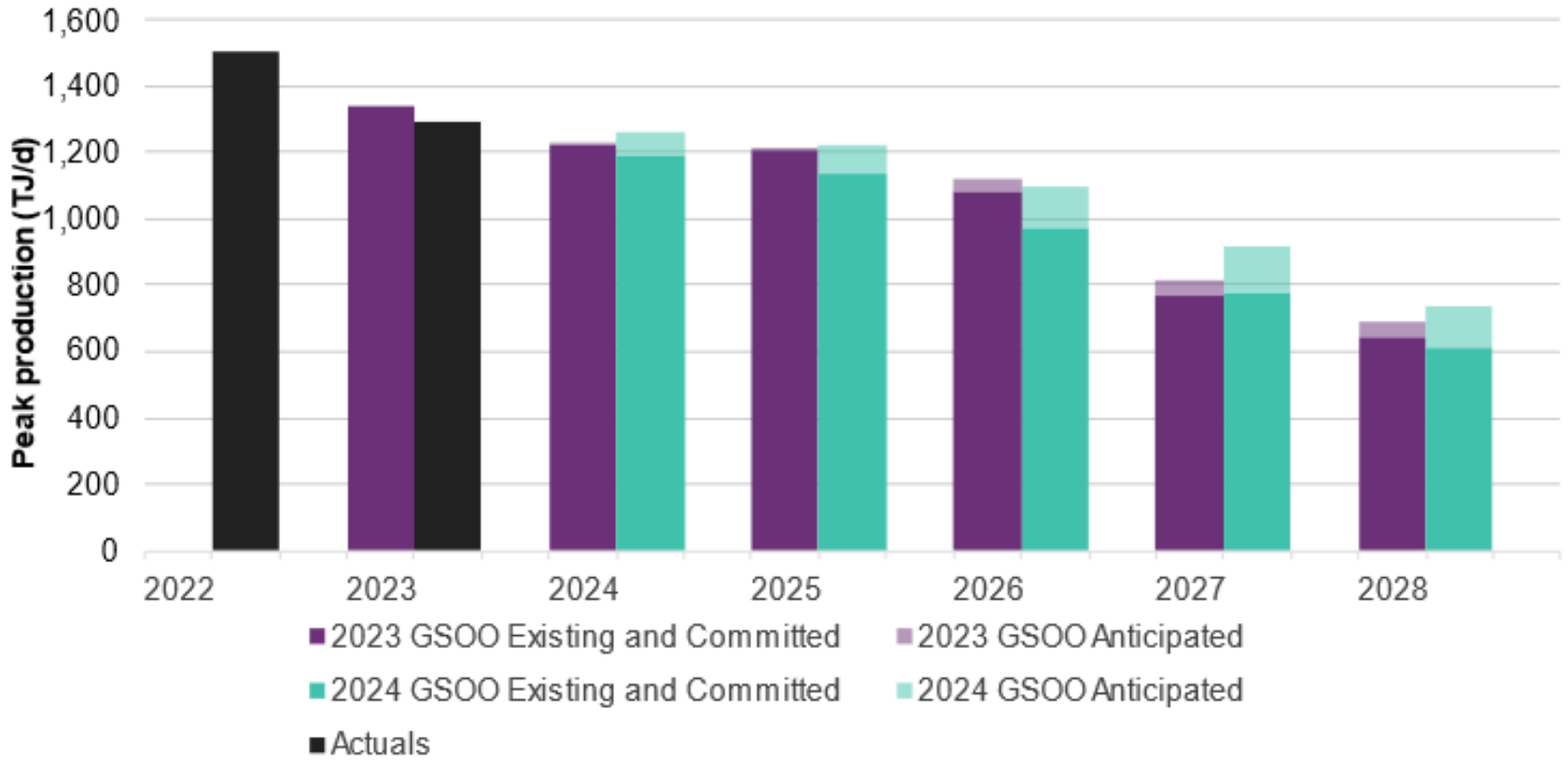
Figure 1 Actual and forecast domestic natural gas consumption, excluding gas-powered generation, all scenarios and compared to 2023 GSOO forecasts (PJ), 2017-43



Southern production is forecast to decline

- Committed gas production in the 2024 GSOO is lower than the 2023 GSOO, but the sum of committed and anticipated production is generally higher, particularly in 2027.
- As in previous GSOO's, southern production is forecast to continue to decline in future years.

Figure 3 Actual and forecast maximum daily production capacity from southern gas fields, June 2022-28 (TJ/d)



New production will be key to address northern supply gaps

- Additional supply beyond what is considered committed and anticipated must be developed from 2026, *depending on prevailing conditions.*
- **From 2028, new northern supply is forecast to be needed for exports and for domestic use.**

Figure 47 Forecast domestic and LNG annual supply gaps in Queensland, assuming that gas is made available to southern customers from northern producers and LNG producers as required, 2024-43 (PJ)

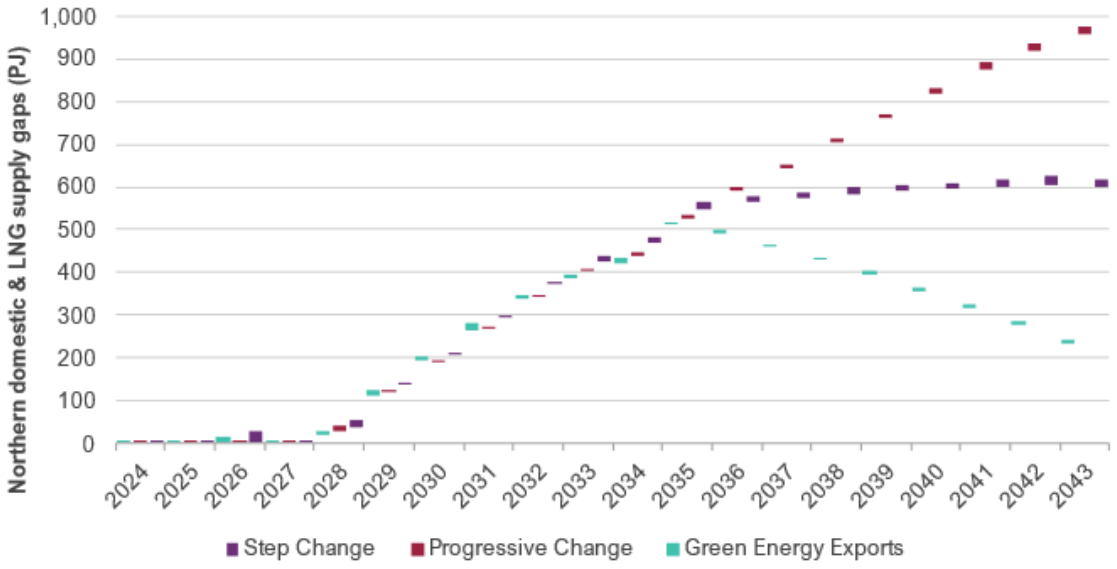
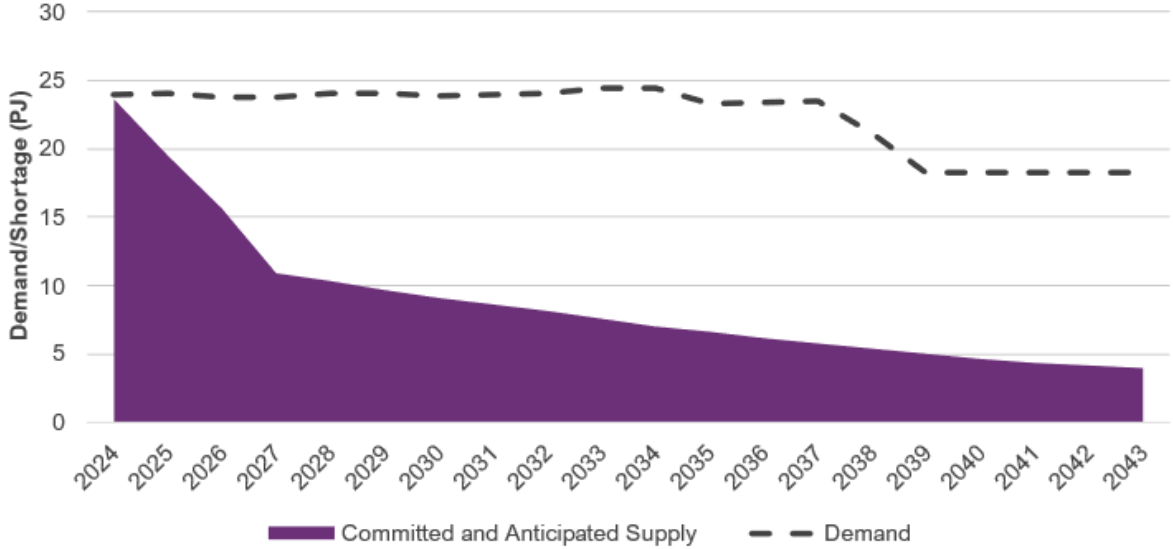


Figure 45 Forecast annual demand and shortage in the Northern Territory, *Step Change*, 2024-43 (PJ)



Future supply, storage and transportation options under consideration

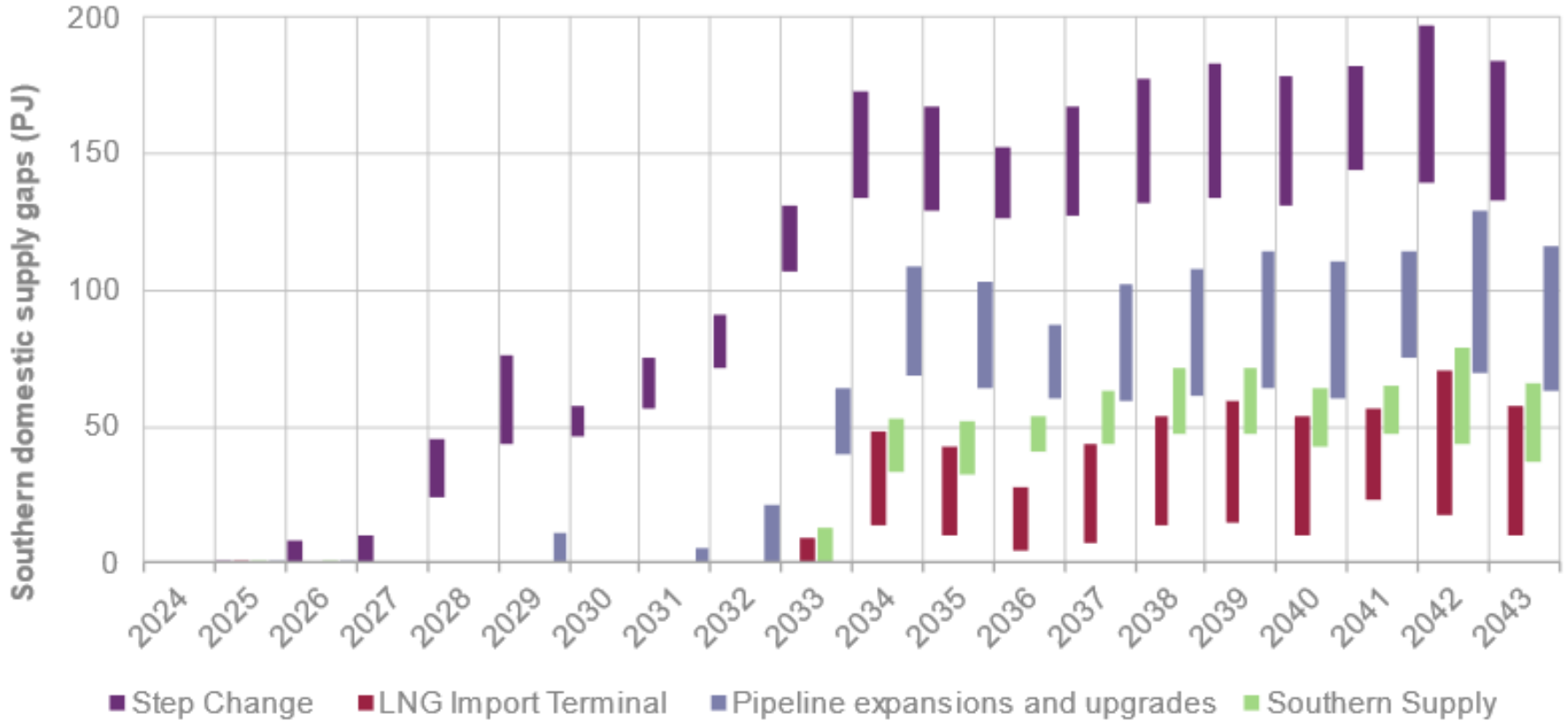
- AEMO has modelled the effects of these options including:
  - **LNG import terminals**,
  - increased north to south **transportation capacity**,
  - increased **southern supply** (including renewable gases), and
  - additional **southern storages**.

- Gas storages will continue to be important to manage seasonal and extreme peak demand risks, due to gas demand volatility and seasonal demand and supply variability.

All options delay supply gaps

- **Supply gaps (seasonal and annual) are delayed with all new investments investigated**
- All options benefit from development of additional southern storage capacity

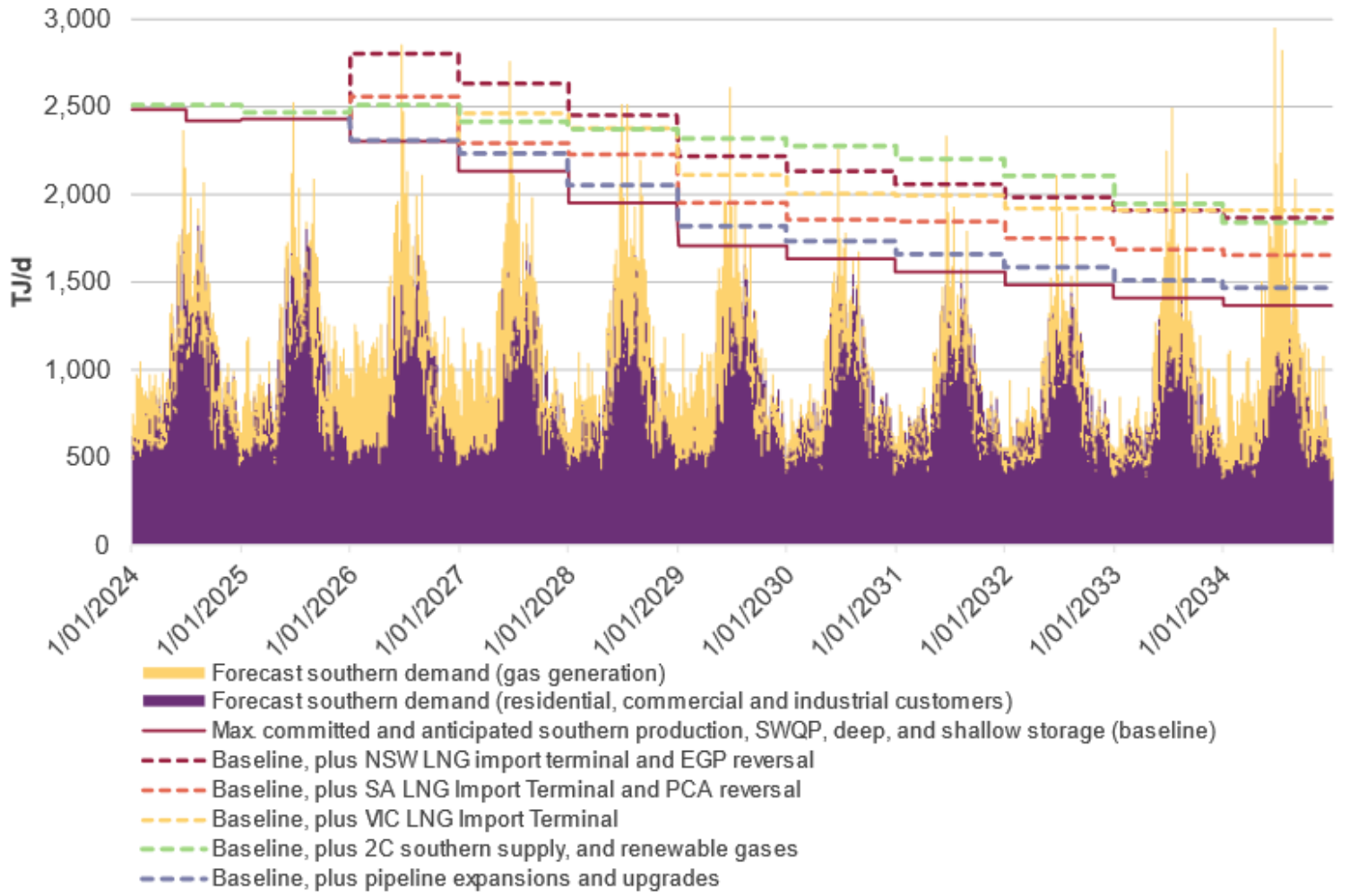
Figure 7 **Range of annual shortfalls for each option assessed across various weather conditions when paired with optimal storage build, 2024-43 (PJ)**



All options reduce peak day shortfall risks

- The effectiveness of each option in reducing peak day shortfall risk varies.
- Storage developments are required to complement the infrastructure options.
- New supply solutions may require transportation upgrades to maximise their effectiveness to southern consumers.
- The volume and volatility of gas generation is key to the scale of long-term adequacy risks.

Figure 6 Forecast southern daily adequacy for each of the future options assessed, excluding optimal storage build, 2023-35 (TJ/d)



Questions and discussion

Ask your question at www.Sli.do #GSOO

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