GAS INFRASTRUCTURE OPTIONS REPORT | *CONSULTATION*

Australian Energy Producers | 23 June 2024

Australian Energy Producers welcomes the opportunity to input into the Australian Energy Market Operator's (AEMO) consultation on the integration of gas development projections into the 2026 Integrated System Plan (ISP).

Natural gas supply and gas power generation (GPG) remain critical to the energy transition. Natural gas supports the transition away from coal, provides the firm dispatchable power required to unlock large-scale renewable energy deployment, and drives Australian industries across the economy including manufacturing, mining and critical minerals processing.

Australian Energy Producers supports the greater integration of gas development pathways and infrastructure options into the ISP. AEMO's effort for greater coherence between the Gas Statement of Opportunities (GSOO) and the ISP is welcome. The Gas Infrastructure Options Report (GIO), GSOO and ISP all recognise that GPG is essential to meeting peak National Electricity Market (NEM) demand, to providing system firming requirements in support of variable renewable energy (VRE) and to support Australia's goal of reaching net zero emissions by 2050.

Key recommendations:

- **AEMO should take into account actions to address natural gas supply constraints when determining modelling and scenario inputs.** AEMO positions GPG at the centre of the NEMs reliability and resilience. However, ISP modelling depends on exogenous gas supply and infrastructure capacity projections as critical inputs. AEMO should factor in actions for addressing supply constraints to avoid unduly constraining optimum gas use in the ISP analysis, as is done with other fuels and technologies. Limiting the supply potential available in the modelling and scenario analysis risks leading to unintended policy and planning distortions and sub-optimal outcomes.

  This includes considering supply potential from gas sources currently considered "uncertain". The GSOO identifies sufficient gas potential in southern states to meet almost all projected southern states gas demand under the Step Change scenario – if existing, committed, anticipated, and uncertain potential sources of supply are considered, southern states production could exceed projected residential, commercial, industrial and GPG gas demand until 2035 (see Figure 1). However, AEMO does not consider "uncertain" supply in its analysis, despite the likelihood that exploration and appraisal can bring at least a proportion of this gas to market. Rather than constraining potential supply in the analysis, the priority should be actions to encourage the investment needed to prove up this potential future supply.

- **AEMO should consider actions to address the impact of government policies on future gas supply.** Forecast gas supply shortages in the southern states are significantly impacted by government policies and regulations. This includes Victoria's exploration moratorium, which was only lifted in 2021, as well as its current prohibition on unconventional gas developments. It also includes lengthy approval process – the Narrabri Gas Project has been in the NSW permitting process for over a decade. To support the development of a least-coast approach to energy security and emissions reductions, AEMO should consider actions to address the impact of State and Federal governments' policies on future gas supply.

Australian Energy Producers looks forward to providing further input into the 2026 ISP. Further comments and recommendations are provided below.

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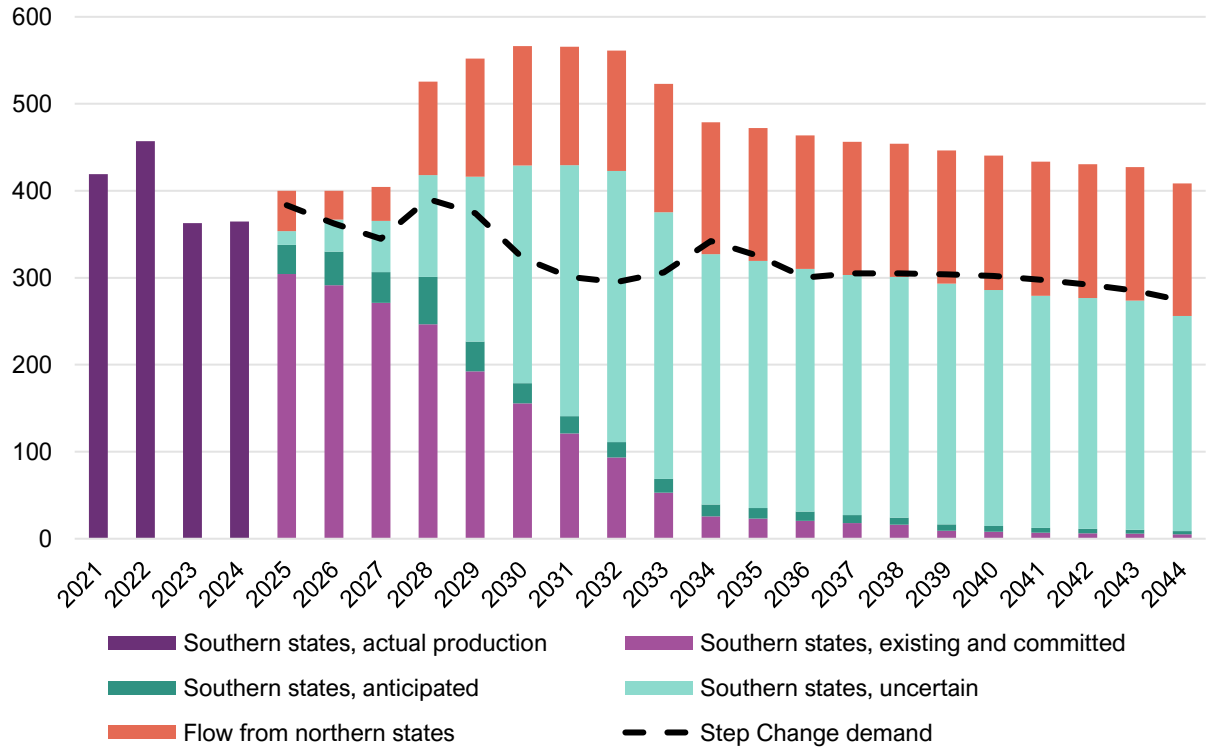
The robust integration of gas and electricity planning is critical in developing least-cost transition pathways. Optimal NEM development pathways are highly dependent on assumptions on VRE penetration, system costs of battery energy storage systems (and competing solutions), and the retirement of coal-fired generation from the NEM. These in-turn influence future requirements for gas supply, gas distribution and storage infrastructure, and GPG in the NEM. Integrating the analysis and planning of these systems is therefore critical.

AEMO's evidence-based approach to gas availability and infrastructure capacity is supported and should include all GSOO supply options. Figure 1 below maps southern states gas supply options as identified in the 2025 GSOO to expected future Step Change demand in southern states, highlighting the importance of policy and regulatory settings in helping bring to market sufficient levels of new gas production to meet expected loads.

Figure 1: Actual and forecast annual southern gas production and pipeline flows compared with Step Change demand in southern states, 2021-44 (PJ)



Source: 2025 GSOO, Figures 29 and 41

Additional information is required on how GHD's gas price forecasts and technology costs are developed and used in AEMO analysis. GHD's costs have been calculated equivalent to Class 5 of the Association for the Advancement of Cost Engineering (AACE) classifications, indicating a very high level of uncertainty (between -50% to +100%). It is unclear whether GHD's costings account for sunk costs in brownfield developments, which are typically protected by commercial confidentiality. If they do not, they may over-estimate the marginal costs of bringing proposed new developments to market and in-turn skew comparative assessments with other fuels and technologies.