

Australian Energy Market Operator

Submitted via email: isp@aemo.com.au

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Submission to AEMO Draft Gas Infrastructure Options Report consultation paper

The Australian Energy Council welcomes the opportunity to make a submission to the AEMO Draft Gas Infrastructure Options Report Consultation paper (Consultation paper).

The Australian Energy Council (AEC) is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

Purpose of the Gas Infrastructure Options Report (GIOR)

Australia requires an energy system that delivers secure, reliable, and affordable electricity as it transitions to net-zero by 2050. The ISP acts as a roadmap for the NEM power system's transition, outlining essential infrastructure needed to meet consumer needs and government energy and emissions targets through 2050.

Gas-powered electricity generation (GPG) has been identified by AEMO as having an important role in successive ISPs, offering reliable, firm, and dispatchable electricity that complements intermittent renewable sources like wind and solar. GPG can generate power during low renewable output or depleted storage, provide critical system security, and support the transition from coal-fired generation to firmed renewables. The availability and deliverability of gas fuel are crucial considerations for determining the optimal size and location of GPG.

The GIOR integrates gas infrastructure into the Integrated System Plan (ISP) to enhance the 2026 ISP's analysis and provide more comprehensive insights into the optimal development path for the National Electricity Market (NEM). The AEC supports this initiative and believes the GIOR is a comprehensive document that adds a much needed “do-ability” to the 2026 ISP.

Modelling Approach

AEMO's gas supply development model will leverage existing analyses from gas planning publications, using development options from the GSOO as starting points. The model will determine a least-cost projection of gas developments from a pool of known options (including predetermined options like LNG regasification terminals, pipeline expansions, and southern supply projects) and generic options.

Each gas development projection will result in unique forecast levels of daily gas fuel availability for GPG, based on supply and infrastructure constraints in the East Coast Gas Market (ECGM). These

limitations will differ based on the gas infrastructure options and timing of developments within each projection. The daily gas fuel limit for GPG in each zone is calculated by subtracting the forecast consumption from RCI demand in that zone from the total supply capacity. This means all gas fuel limitations for GPG assume that RCI gas demand is satisfied first.

These gas fuel limitations will be a key output of the gas supply development model and will be input into the ISP's electricity models. If insufficient gas is available due to these limits, the electricity capacity outlook model may identify alternative firm capacity developments or rely on secondary fuels. The limitations may also influence GPG location, electricity network investments, and the role of other electricity firming solutions such as storages.

The AEC supports this modelling approach, and believes it is helpful to highlight the infrastructure options available and provide cost estimates to support a least cost approach. AEMO's modelling approach which satisfies GPG demand after residential, commercial and industrial makes sense, as it provides a critical input into the broader ISP. To the extent there are GPG fuel shortfalls, it may create a need to look at whether the hierarchy used for modelling purposes should be applied in practice. The focus should always remain a least cost energy transition with reliability outcomes supported.

Any questions about our submission should be addressed to David Feeney, by email to david.feeney@energycouncil.com.au.

Yours sincerely,



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Australian Energy Council