20 June 2025

Ms Merryn York
Executive General Manager System Design
Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne VIC 300

via email: isp@aemo.com.au

Dear Ms York,

Powerlink Queensland Submission
Draft 2025 Gas Infrastructure Options Report – June 2025

Powerlink Queensland (Powerlink) welcomes the opportunity to provide feedback on the Draft 2025 Gas Infrastructure Options Report (GIOR) and recognises its importance in shaping forecast and planning outcomes of the National Electricity Market (NEM).

Powerlink recognises the critical role that gas-powered-generation (GPG) will play in the NEM to provide firming, as well as system services such as strength, inertia and system restart services as renewable penetration increases and as coal generation retires.

As also highlighted in our submission on the ISP Methodology Issues Paper in November 2024, Powerlink welcomes the integration of gas into the Integrated System Plan (ISP), and the more accurate locational GPG placement and gas supply considerations that will result.

Broadly speaking, Powerlink believes the approach to integrate gas into the ISP outlined in the GIOR and ISP Methodology is appropriate and pragmatic. The attachment to this letter raises some small items for consideration that if remedied we believe will enhance the analysis and results.

If you have any questions in relation to this submission or would like to meet with Powerlink to discuss this matter further, please contact Tim Abernethy.

Yours sincerely

Jacqui Bridge
EXECUTIVE GENERAL MANAGER, ENERGY FUTURES

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Attachment – Powerlink Queensland Submission to the Draft 2025 Gas Infrastructure Options Report

This response addresses a small subset of consultation questions raised in the Draft 2025 Gas Infrastructure Options Report, as summarised below. It also addresses a methodology consideration that is not explicitly asked by the consultation, by Powerlink considers relevant.

Application of gas development projections for fuel limitations in the Integrated System Plan (ISP)

Table 4 in the GIOR outlines the gas supply and pipeline zones for the purpose of allocating daily gas fuel limits to gas generators or groups of gas generators (including candidate new build gas generators) in the ISP's Capacity Expansion Model.

Powerlink considers that there are plausible locations for future GPG units that are not covered by the zone definitions in Table 4, namely:

- New generators that are electrically within the South Queensland (SQ) ISP sub-region, that are supplied gas from the coal seam gas producing fields in the Surat area, or otherwise upstream of the Roma to Brisbane Pipeline (RBP) constraint that currently defines the limits for new GPG units in Brisbane/SQ.
- New generators that are in Gladstone (Gladstone Grid [GG] ISP sub-region) that may have the option of sourcing gas from sources other than the Queensland Gas Pipeline (QGP) (such as from the LNG exporting facilities), which currently defines the limits for new GPG units in Gladstone.

As there are no plans to augment either the RBP or QGP and these pipelines are frequently at or near capacity, Powerlink believes that there is a risk that the current zone definitions will encourage all new build GPG units to be within the Central Queensland (CQ) sub-region and potentially encourage inter-regional electricity transmission investments, when that may not be required or efficient.

With respect to this, Powerlink recommends:

1. AEMO allow for consideration of GPG units that are built in GG and SQ that are not subject to the gas supply constraints on the QGP or RBP respectively.
2. Add the ISP sub-regions to the "New GPG Development Locations" column to Table 4 for clarity.

Methodology Consideration

Powerlink understands that AEMO's Gas Supply Model will interact with the Capacity Expansion Model and Time-sequential Model in an iterative fashion, where:

1. GPG consumption forecasts from the Time-sequential Model are provided to the Gas Supply Model as an *initial guess*.
2. The Gas Supply Model will evaluate the forecasts for GPG along with residential and industrial customers, and expand or augment gas supply, storage and transmission to meet those forecasts in a least-cost fashion. These outcomes will be used to formulate gas supply constraints for GPG.
3. The Capacity Expansion Model will consider GPG gas supply limitation constraints from the Gas Supply Model when producing a least-cost expansion plan for the NEM.
4. The Time-sequential Model will assess the least-cost expansion plan and, among other things, produce a GPG forecast.

Powerlink notes that gas supply constraints that are produced by the Gas Supply Model may be highly correlated with the GPG forecasts it receives as an input. For example, if in the input GPG forecast the only GPG in Queensland was in SQ, then in cases where the gas supply model is free to expand the system, the gas supply constraints produced by the gas supply model would likely reflect that need. This may mean that the spatial placement of GPG within sub-regions in the NEM is not efficient or least-cost.

Powerlink recommends that AEMO develops and publishes a methodology that allows for the location of new GPG units to be appropriately tested to ensure it is efficient and least cost, considering both electricity and gas system costs where possible.

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