23 June 2025

Submitted to: ISP@aemo.com.au

RE: Draft 2025 Gas Infrastructure Options Report

Shell Energy welcomes the opportunity to comment on the draft 2025 Gas Infrastructure Options Report.

About Shell Energy in Australia

Shell Energy is Shell's renewables and energy solutions business in Australia, helping its customers to decarbonise and reduce their environmental footprint. Shell Energy delivers business energy solutions and innovation across a portfolio of electricity, gas, environmental products and energy productivity for commercial and industrial customers, while our residential energy retailing business Powershop, acquired in 2022, serves households and small business customers in Australia.

As the second largest electricity provider to commercial and industrial businesses in Australia[1], Shell Energy offers integrated solutions and market-leading[2] customer satisfaction, built on industry expertise and personalised relationships. The company's generation assets include 662 megawatts of gas-fired peaking power stations in Western Australia and Queensland, supporting the transition to renewables, and the 120 megawatt Gangarri solar energy development in Queensland. Shell Energy also operates the 60MW Riverina Storage System 1 in NSW. Shell Energy Australia Pty Ltd and its subsidiaries trade as Shell Energy, while Powershop Australia Pty Ltd trades as Powershop. Further information about Shell Energy and our operations can be found on our website here.

General Comments

Shell Energy supports the development of the gas infrastructure options report and modelling to ensure that the ISP relies on robust assumptions about what is possible when it comes to gas supply for gas powered generation (GPG) as the energy supply system transforms.

Dual Fuel Capability

Properly accounting for the dual-fuel capabilities of some GPG facilities in the NEM is key to understanding how potential gas supply limitations might impact GPG output in the ISP modelling. It is also key to understanding whether gas supplies will face constraints if GPG is required to operate to guarantee reliability in the NEM.

Many gas generators in the NEM can operate on both gas and diesel fuel. This design feature allows these plants to operate when gas is unavailable or more expensive than diesel. It is Shell Energy's understanding that the ISP modelling does not account for this ability to switch fuels. We consider that this may artificially inflate gas supply concerns since without fuel switching the ISP modelling would be constrained to assume that when electricity generation reserves are low and gas supplies are tight a trade off must be made between the two. This could lead to lower assessments of future reliability of both gas and electricity supplies or, more likely, it could result in model outcomes that contain inefficient construction of alternative dispatchable generation

[1]By load, based on Shell Energy analysis of publicly available data.

[2] Utility Market Intelligence (UMI) survey of large commercial and industrial electricity customers of major electricity retailers, including ERM Power (now known as Shell Energy) by independent research company NTF Group in 2011-2021.

Shell Energy Operations Pty Ltd, Level 30, 275 George Street, Brisbane Qld 4000. GPO Box 7152, Brisbane Qld 4001.
ABN 28 122 259 223 Phone +61 7 3020 5100 Fax +61 7 3220 6110 shellenergy.com.au

resources. It could also lead to the gas infrastructure options report needing to assume construction of gas supply beyond what is really necessary.

These outcomes each have the potential to add costs to consumers unnecessarily. We therefore support the inclusion in the ISP modelling of dual fuel operations for the plant that already have this feature. We also consider that it would be appropriate to allow the ISP model to consider an investment option to retrofit dual fuel capability to GPG that currently does not have this capability.

We note that this approach should be subject to careful consultation with plant owners and operators to ensure that diesel fuel operating parameters and limitations are appropriately captured. For example, some GPGs in the NEM are subject to environmental license restrictions regarding the number of hours that they can operate using diesel fuel during defined intervals. Nevertheless, recognition of dual fuel capability is critical to a complete understanding of gas infrastructure requirements over the ISP modelling period.

Transparency around the modelling results for dual fuel usage will be crucial to ensure stakeholders are appropriately informed about the impact on ISP and gas infrastructure outcomes. Modelled diesel usage at dual fuel plants should be separately reported in both time series results and in aggregate annualised figures. Separating these model results from liquid fuels used at liquid-only power generating stations would add clarity to the results and analysis.

Included Projects

Shell Energy's view is that publicly announced projects are not sufficiently firm to assume in a modelling base case. Projects that do not meet the criteria for classification as a committed or anticipated project should only be included in the modelling as expansion options and should only be selected for inclusion in any system expansion results when they compete favourably with other projects on a cost/benefit basis. Assuming that publicly announced projects go ahead in a model, rather than evaluating them against other options, risks these projects crowding out lower cost or more innovative solutions to supply constraints.

Cost Transparency

Shell Energy encourages AEMO to provide detailed cost outcomes for all scenarios. We recognise that some individual projects are subject to commercial confidentiality considerations but presentation of total cost and disaggregation to regional or zonal level, where possible, would provide stakeholders with useful information to inform analysis and compare options across scenarios and fuel types.

Draft Gas Supply Zones

We note that the information in Table 4 of the draft report (draft gas supply and pipelines zones and allocation of GPG) appears to imply that generator supply options are static but this may not be the case. For example, Table 4 currently lists supply for Tallawarra and Smithfield as being supplied from the Eastern Gas Pipeline (EGP). However, Smithfield can also receive supplies from Moomba and, if the modelling results in a reversal upgrade of EGP, Tallawarra may also receive supplies from alternative zones. Ensuring that the modelling is flexible to accommodate these dynamic supply outcomes is critical to minimising costs and optimising supply efficiency.

Minimum Utilisation

We note that gas infrastructure is typically deployed at large scale and that a gas expansion model may deploy scale projects to solve a relatively small or transitory supply shortfall. We note that ideally this issue would be solved by an assessment of the commercial viability of the proposed option but that in cost based modelling this approach may not be appropriate or achievable. As a result we recommend that Table 5 of the

draft report, which identifies gas infrastructure expansion options, also identify a minimum utilisation below which the project will not be deployed. This approach would limit large model-driven deployments that are highly unlikely to make commercial sense.

Information Provision

The supply limits in the southern zone presented in figure 9 of the report are a helpful way of presenting the gas constraints for GPG. We encourage AEMO to publish similar figures for each zone following the modelling exercise to identify the impact on GPG constraints.

We also request that AEMO details the minimum flow limits, not just MDQ, in the Gas Infrastructure Options table in the final report to help with stakeholder analysis.

It would also be useful for stakeholders conducting their own analysis for AEMO to publish gas demand by GSOO zone as part of the report data set.

Project Costs

In our submission to the draft 2025 Electricity Network Options Report Shell Energy proposed an alternative methodology for capital cost estimation for modelling purposes. It seeks to minimise the risk to consumers from significant upward variations in the cost of regulated transmission infrastructure. Given that similar uncertainty ranges apply to gas infrastructure, we believe the approach is appropriate to apply for the gas infrastructure options modelling.

Briefly, the approach would see the point forecast cost estimate adjusted upwards toward the upper cost estimate. The adjustment would be made such that the margin between the adjusted cost estimate and the upper cost estimate is only 20%. This approach acknowledges that, based on experience with recent projects, the probability of the lower cost estimate outcome is near zero. It therefore weights the point estimate towards the upper cost estimate with the 20% margin serving as a reasonable buffer that consumers can reasonably accept. For a detailed discussion of the approach, we refer to our submission to the draft 2025 Electricity Network Options report. While we acknowledge that the gas infrastructure options report does not currently result in actionable investments, we consider that consistency in approach to cost estimation will ensure that the ISP modelling is robust and comparisons between gas and electricity infrastructure costs are valid and transparent.

Please contact Peter Wormald (peter.wormald@shellenergy.com.au) to discuss any questions regarding this submission.

Yours sincerely

Libby Hawker
General Manager – Regulatory Affairs and Compliance