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EnergyAustralia

LIGHT THE WAY

Energy Ministers Secretariat
GPO Box 858
Canberra ACT 2601

Lodged electronically: gas@dcceew.gov.au

EnergyAustralia Pty Ltd
ABN 99 086 014 968

Level 19
Two Melbourne Quarter
697 Collins Street
Docklands Victoria 3008

Phone +61 3 8628 1000
Facsimile +61 3 8628 1050

enq@energyaustralia.com.au
energyaustralia.com.au

Energy Ministers – Reliability and supply adequacy framework for the east coast gas market – Consultation Paper – 1 June 2023

EnergyAustralia is one of Australia's largest energy companies with around 2.4 million electricity and gas accounts across eastern Australia. We also own, operate and contract a diversified energy generation portfolio across Australia, including coal, gas, battery storage, demand response, wind and solar assets, with control of over 5,000MW of generation capacity.

We appreciate the opportunity to comment on the development of a gas reliability framework. Several elements in the consultation paper are needed to provide guardrails around the powers that were created urgently for AEMO earlier this year. We support:

- instituting a Reliability Standard that reflects customer willingness to pay, established under appropriate governance arrangements
- AEMO using existing and anticipated information reporting under stage one reforms to present risk analysis in Projected Assessment of System Adequacy (PASA) publications as well as refinements to the Gas Statement of Opportunities (GSOO) and the Victorian Annual Planning Report (VAPR)
- structured signalling of supply threats that correspond to proportionate responses and timeframes
- channelling AEMO's new trading powers under a last resort mechanism that would emphasise demand response.

Such features generally mirror arrangements in the National Electricity Market (NEM) and in other gas markets. Notably, they would allow the **prudent management of risks inherent in 'normal' supply and demand dynamics**.

We do not support a contracting-type obligation for gas as it is likely to be ineffective and expensive to administer, as demonstrated by the NEM's Retailer Reliability Obligation (RRO). We appreciate, however, ministers and officials exploring ways to encourage gas supply and their interaction with the Australian Domestic Gas Security Mechanism (ADGSM) and now the Code of Conduct. In our view, these levers as a package will still not enable new investment while also hampering the efficient operation of markets. The presence of **structural factors that deter new investment in gas supply must be addressed through more fundamental government action**.

Gas production and transport infrastructure is underpinned by long-term contracting arrangements, which can only be agreed to where risk can be reasonably priced by market participants. Interventions that depend on ministerial triggers or exemptions are difficult to plan around. The consultation paper highlights the reluctance of participants to contract beyond the short term and we expect this to continue. Notably, the 2023 GSOO listed investment challenges arising from carbon risk and associated planning decisions which are on top of more transitory disruptions due to international factors.¹ Given the long lead times associated with bringing new production facilities online, we are now at a critical phase if supply shortfalls are to be properly addressed.

The broader role of gas in the transition is still subject to considerable debate. Gas-powered generation (GPG) is expected to play a critical role but with much more intermittent output in serving the NEM, as the generation mix shifts toward great variable renewables. Yet gas generation has been politicised to the extent of being excluded from the federal government's capacity investment scheme, reflecting the strong preferences of several jurisdictions. Customer demand will also decline as we electrify homes and transport, but the ongoing need for gas in industrial applications must be carefully managed. The capabilities of gas network infrastructure to cope with changing demand trends will also need to be addressed. All of these factors require long-term policy vision and should form part of the government's anticipated Future Gas Strategy.² Specifically, this strategy should canvass government underwriting or other risk sharing arrangements in upstream supply, in the same way the Grattan Institute recently flagged for gas networks.³

We support a reliability standard with associated governance arrangements

A reliability standard for gas is now required to properly guide AEMO's enhanced monitoring and intervention powers. Of the main problems identified in section 2.2.1 of the consultation paper, the lack of objective thresholds for AEMO intervention are now the most pressing. As we saw with the extension of AEMO's powers earlier this year, governments are likely to continue to place pressure on AEMO to mitigate supply risk. In the absence of an appropriately determined standard, AEMO could take an overly conservative stance, with additional costs for customers.

The likely benefits of a reliability standard would apply more to objectively identifying tolerances of supply risk for peak daily and seasonal needs. On an annual basis, any reliability standard would merely highlight the unacceptable risk of annual supply shortages expected from the mid to late 2020s and not provide any new signals to the market, nor be within AEMO's powers to resolve.

A gas reliability standard is also required to properly calibrate market price settings. AEMO's current approach of applying a 'lost profit' threshold for representative customer segments⁴ should be reconsidered. As per NEM arrangements, the form and level of any reliability standard should reflect a value of customer reliability (VCR) and be set through appropriate independent governance arrangements with consumer representation. There are likely to be material administrative costs and lead times involved in such a process. If interim settings are required, the data and parameters in AEMO's recent review of gas

¹ AEMO, *Gas Statement of Opportunities*, March 2023, pp. 87-8.

² [Budget 2023-24: Budget promotes energy security and low-carbon future | Ministers for the Department of Infrastructure](#)

³ [Getting off gas: why, how, and who should pay? \(grattan.edu.au\)](#). See section 7.

⁴ [AEMO | Gas Market Parameter Review 2022](#)

market price cap settings could be reused but should still be subjected to proper and independent review rather than determined by officials.

The form and level of a reliability standard will also likely have implications for government actions and participant incentives under the ADGSM and Code of Conduct, and we encourage officials to provide clarity on this. Officials should consider whether setting reliability metrics and VCR values for gas supply generally may or should have flow on effects for the AER's regulation of gas network businesses.

In terms of the specific form of the standard, all of the options identified in the consultation paper potentially have merit. However this should be the subject of consideration by an independent reliability panel as well as the AER in the case of associated VCR methods and values, and not be pre-determined by ministers or by the AEMC in drafting rules. Principles to guide the governance framework would include consideration of joint corresponding risks for gas market and NEM reliability. Administrative arrangements should also allow appropriate sequencing of reviews of NEM settings and gas market settings. Our submission to AEMO's recent review highlighted that rule 492(1)(g) of the National Gas Rules (NGR) requires Short-term Trading Market (STTM) parameters to be revised after NEM settings are reviewed, which should be reversed given gas price caps affect NEM settings not vice versa. Other stakeholder submissions made a series of 'policy' points that were out of scope but relevant to a gas reliability framework, and we encourage officials to review them.

On some of the specific options canvassed in the paper:

- probabilistic peak demand and annual supply measures seem appropriate and could build from existing GSOO and other reporting. Regional specific measures would also have value including because southern winter heating load will likely have different VCR values. However it is not clear how multiple measures would be operationalised. Depending on system characteristics, investment or intervention triggers associated with the most stringent reliability measure could deliver reliability in excess of standards in other regions or across other time periods.
- it will also be important to consider reliability of supply to specific locations, likely lateral pipelines, that may be expensive for participants and pipeline owners, and where applying generalised VCR values may become problematic. The example outages listed in Box 2.1 of the consultation paper were in regional areas affecting relatively small groups of customers, with resource intensive or expensive restoration options including LNG transport. As customers progressively electrify, a point will be reached where some infrastructure segments will no longer be feasible to operate, which should be captured in risk monitoring and any associated interventions. As noted above, joint consideration of reliability for network operators and suppliers may be warranted.
- meeting any N-1 standard would be excessive given limited redundancy in the system but may be important for threat signalling purposes
- some risks are binary in nature, for example the impact of industrial action at Longford. Treatment of these risks in probabilistic PASA type modelling would be important to consider. AEMO's projections could explore informative scenarios in the same way droughts or energy limits are now being done for its Energy Adequacy Assessment Plan

- distinctions between natural and other covered gases like biomethane and hydrogen do not seem relevant. Aside from heat and volumetric conversions, it is not immediately clear why some gases should be treated differently from a reliability perspective.

We support pre-defined threat signaling but not closure notice requirements

The establishment of objective threat definitions and intervention thresholds is a necessary complement to AEMO's new powers. Efficient market operation depends on having clarity on when and how AEMO would respond to escalating threats or risks. Threat levels can be graded in proportion to expected negative customer impacts of loss of supply as well as the distortionary effects of corrective interventions.

We support AEMO's analysis of risks being published in PASA-type notifications. In the first instance this should be based on the information gathering powers AEMO has gained under stage one reforms for rolling weekly and 6 monthly outlooks from participants. Daily resolution would support relevant ST and MT time horizons. Considerations of the level of granularity and forecasting period should reflect the operation and roles of particular supply-side facilities. This would lend support for specific seasonal analyses to capture storage facilities like Iona ahead of and during winter periods.

It is critical that PASA type reporting accurately capture the actions of large producers given their dominant role in supply adequacy. If such information is incomplete or not credible, then it would undermine the value of any projections for planning purposes, with subsequent impacts on reliability.

Detailed consideration should be given to avoiding additional information reporting burden, particularly over longer timeframes and for system elements where reliance on probabilistic and scenario modelling, rather than participant forecasts, are likely to be more beneficial. It would be of limited value in simply aggregating participants' data and signalling average or most likely conditions. GPG forecasts in particular are subject to high degrees of uncertainty and should integrate with AEMO's electricity PASA modelling. Officials and AEMO should also confer on ad hoc information that might already be prepared by participants in response to 'winter readiness' inquiries that could form part of seasonal PASAs. The concurrent operation of the gas Bulletin Board should also be considered.

Risk projections would need to accommodate the design of reliability standard measures. As noted above, this might include specific regional and subregional boundaries, and pipeline segments that are not sufficiently interconnected.

We see limited benefit in closure notice requirements. Production facilities are already monitored and will tend to produce until their wells expire, which can be difficult to predict for asset owners. Otherwise we expect the infrastructure closures to be relatively rare events.

Regarding threat signalling mechanisms:

- the Consultation paper appropriately sets out considerations around issuing risk notifications for events that affect both gas and electricity supply, and that a mechanistic approach is likely to be undesirable
- there may be a need to consider how threat identification affects the compensation regime, in terms of process and administrative issues, and also in the consideration of any direct and opportunity costs arising in electricity markets

- there could be a role for AEMO to signal financial risk in terms of participant exposure to high price events and levels of contracting, for example the information provided by retailers under NGR 687(2) shows the proportion of their gas demand expected to be purchased under agreements versus spot markets.

We support targeted reliability management tools as a last resort

AEMO's new trading functions and use of its \$35 million fund should be channelled into a last resort intervention arrangement. Specifically, AEMO's powers under section 91AD(1)(f) of the National Gas Law should be supplemented by rules similar to the Reliability and Emergency Reserve Trader (RERT) principles in the NEM, via an extension of NGR rule 699, including reference to VCR and 'out of market' requirements.

This last resort power should be implemented by a RERT-style tender panel that is limited to demand response providers. This arrangement should preserve efficient contracting opportunities between customers and suppliers i.e. be open to all those who are capable of responding to AEMO directions and not just large end use customers.

Widening AEMO's procurement to supply-side solutions would likely be ineffective in resolving reliability threats as it would simply displace commercial arrangements but with higher cost. In practice it may even exacerbate risk as participants expect AEMO intervention in response to certain events and they may be able to free ride or socialise their cost of supply.

As noted in the consultation paper, the ability of AEMO to issue directions and now take trading positions was introduced on top of its abilities to schedule contingency gas in the STTM contingency gas and powers for DWGM intervention, including Dandenong LNG. There may be opportunities to streamline detailed rule provisions and guidelines on these various functions to provide participants more clarity on how they interact.

As noted at the outset we do not support the introduction of a reliability and supply adequacy contracting obligation. The experience with resource adequacy in the NEM is that such decentralised mechanisms are implemented poorly, become politicised and ultimately there is a greater appetite for governments to abandon market-centric arrangements in favour of directly underwriting new investment. Design challenges are also apparent in establishing a RRO-type mechanism in gas markets given different risks and structural barriers to new production sources:

- Relative to electricity, and as noted in the consultation paper, gas demand is much less continuous and subject to greater variability, especially for GPGs. It seems unrealistic to expect parties to contract far ahead for fuel needs which are prudently met through short term and spot purchases.
- Parties would only be incentivised to contract longer term via imposing non-compliance penalties, which would need to be very high to counterbalance risk over these timeframes. If no supply were forthcoming, this would unfairly expose liable entities and potentially threaten their financial viability. Supply agreements tend to be for large volumes that do not easily provide for forward contract liquidity, which is necessary for liable parties to manage their exposures under a contracting obligation.
- A supply-side liquidity obligation would be necessary but solving this goes to the heart of our supply adequacy problem and requires more comprehensive government leadership, as we highlighted at the outset.

- Imposing obligations to reach new long-term contracts on the basis of trigger events would need to consider gas that is uncontracted and available at that time. Particular timings for any contracting mechanism may also have unintended intersections with bidding and offer processes set out under the Code of Conduct.

If you would like to discuss this submission, please contact me on 03 9060 0612 or Lawrence.irlam@energyaustralia.com.au.

Regards

Lawrence Irlam

Regulatory Affairs Lead