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Energy Senior Officials
Department of Climate Change, Energy, the Environment and Water
GPO Box 858, Canberra ACT 2601

Submitted via email: gas@dcceew.gov.au

Dear Energy Senior Officials

Reliability and Supply Adequacy Framework for the East Coast Gas Market – Consultation Paper

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on Energy Senior Officials' (ESO) Consultation Paper on the *Reliability and Supply Adequacy Framework for the East Coast Gas Market*.

Origin recognises the intent of the proposed 'Stage Two' longer term reforms is to frame how AEMO uses its new powers (including issuing directions and trading in gas). If designed and implemented appropriately, a gas reliability standard and enhanced monitoring and communication tools may improve market transparency and provide much-needed guidance and boundaries for AEMO interventions. However, further analysis is required to facilitate a more informed assessment of these measures, including to better define the risk these measures are intended to address (e.g. is it aggregate availability of supply across a year, or on peak days). Given the complexity associated with determining a gas reliability standard, we also consider the form / level of the standard should ultimately be determined by an independent expert body like the Reliability Panel (subject to ensuring adequate representation from gas market participants / consumers), or the Australian Energy Market Commission (AEMC), consistent with governance arrangements in the National Electricity Market (NEM).

More broadly, it is clear a primary challenge for the east coast market is facilitating supply from new resources given declining output from traditional sources. The Australian Energy Market Operator (AEMO) has forecast potential supply shortfalls in the southern states on an annual basis from 2027, even with the development of anticipated supplies, and with east coast LNG Projects delivering the maximum amount of gas possible (limited by pipeline capacity) to customers in those regions.[1]

In Origin's view the proposed reliability and supply adequacy (RSA) contracting obligation would not assist with addressing this challenge and should not be progressed. A fundamental shortcoming of mechanisms of this nature is that they provide a relatively indirect (and consequently uncertain) means of facilitating new investment. Given the capital-intensive nature of resource exploration / development and associated risks, there is a range of factors that can impact resource development decisions. These include producer's risk preferences, production costs (which are dependent on the nature of the gas resource and generally vary from field to field) and current and expected future gas prices. The proposed RSA would not overcome these issues. A retailer / gas powered generator's (GPG) willingness to enter into longer-term gas supply contracts to support investment in new supply would continue to be impacted by uncertainty around their forecast gas demand and the value of gas. It would also not be practical, nor

[1] AEMO, 'Gas Statement of Opportunities – for central and eastern Australia', March 2023, pg. 67.

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efficient, to require GPG operators to contract an arbitrarily determined volume of gas supply a year out and lock-in costs when there is significant uncertainty around their forecast load.

A formal supplier of last resort function for AEMO would also not serve to support new supply in the event of a forecast shortfall. Rather it would likely lead to AEMO contracting gas that would otherwise have been available to market participants. Formally allowing / requiring AEMO to procure gas in planning timeframes (e.g. at T-1 or earlier) could also give rise to unnecessary costs in circumstances where the intervention is predicated on a level of forecast demand that does not materialise, and / or there has been a market response to support additional supply, such that the intervention was ultimately not required.

Having regard to the above, a key priority for governments in addressing reliability and supply should be to also consider the adequacy of existing policy / market settings and extent to which other measures could be needed to facilitate the required level of investment in new supply particularly to support southern demand.

If you wish to discuss any aspect of this submission further, please contact Thomas Lozanov at thomas.lozanov@originenergy.com.au.

Yours Sincerely,

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1. Establishment of a formal gas reliability standard

A formal gas reliability standard that reflects the value of customer reliability (VCR) could potentially assist with objectively identifying and signalling gaps in system reliability and informing the need for, and level of any AEMO-led interventions. The recent rule change providing AEMO with new contracting powers at the Dandenong LNG facility provides an example of the utility of a reliability standard in this respect. As acknowledged in the Consultation Paper, many stakeholders expressed concern that requiring AEMO to procure all uncontracted capacity at the facility would lead to unnecessary costs for gas users and potentially have limited impact on the likelihood of curtailment. However, AEMO identified that in the absence of a standard, it was unable to determine whether contracting only a portion of uncontracted capacity at the facility (rather than all of it) would sufficiently address the identified risks.[2]

A reliability standard could also inform the level of facilitated gas market settings that play a crucial role in limiting risk for market participants, while also supporting efficient market operations and investment decisions. Where market settings do not adequately reflect the gas VCR, this could impede efficient market outcomes and necessitate greater reliance on market interventions.

The development of a new gas reliability standard will be a challenging and complex task. This is exemplified by the extensive work currently being undertaken by the Reliability Panel to assess the form of the NEM reliability standard. Consistent with this, we consider more detailed analysis is ultimately required to facilitate an informed assessment of the suitability of different metrics. Ideally such work should be undertaken by an independent expert body like the Reliability Panel (subject to ensuring adequate representation from gas market participants / consumers), or the AEMC, consistent with governance arrangements in the NEM.

In this context, we recommend that where the need for a reliability standard is endorsed by Energy Ministers, the next step for ESO should be to progress the rule / law changes required to establish the standard and associated governance arrangements, rather than pre-emptively determining the precise metric that should be applied.

If this approach is not achievable, Origin is supportive of ESO undertaking more detailed analysis and consulting further with stakeholders on the design of the standard. Our comments on some of the specific matters that should be considered as part of that process are noted below.

- Form of the standard: Our preliminary view is that a deterministic N-1 standard (as outlined in the Consultation Paper) would not be economically efficient / practical given the unique characteristics of the East Coast Gas System (ECGS), which is reliant on a small number of critical supply sources and pipelines. The ability to utilise storage and linepack also inherently provides a level of supply redundancy to support demand in operational timeframes. A probabilistic approach that considers a broad range of potential scenarios / operating conditions and likelihood of some measure of reliability not being met would likely be more appropriate. However, a more detailed assessment of the trade-offs associated with different probabilistic metrics and the types of risk ESO are seeking to address with the standard (e.g. is it aggregate availability of supply across a year, or on peak days) is required.

- VCR for gas supply. We agree a VCR measure should be used to inform the level of any gas reliability standard, and that the Australian Energy Regulator (AER) should be responsible for determining the level of any such measure given its equivalent role in the NEM. Noting there is limited information currently available on which to determine a gas VCR (as customer outages

[2] "Without a regulatory mandated reliability standard… AEMO has no basis on which to model or forecast required capacity against". AEMO, *AEMO's responses to the AEMC's questions regarding the Declared Wholesale Gas Market interim LNG storage measures rule change*, p. 4.

arising from gas supply issues have historically been rare) and there are inherent challenges associated with determining such measures, the AER should be required to consult on the approach / methodology to determining the gas VCR.

- Governance arrangements relating to the determination of facilitated gas market settings should also be considered: As noted above, we agree any gas reliability standard should also inform the level of the facilitated gas market parameters. Consideration should be given to providing a single body like the Reliability Panel with oversight of both electricity and gas market parameters. This is not to disparage the work of AEMO in undertaking parameter reviews to date. However, providing the Panel with oversight of both areas would enable a consolidated review to be undertaken, which would likely provide efficiency benefits and potentially allow for the interaction of settings across markets to be better considered.

2. Development of new monitoring and communication tools

Origin supports the introduction of Short Term (ST) and Medium Term (MT) gas PASAs with a rolling 7-day outlook and a rolling 6-month outlook respectively, as this would address a gap in systematic intra-year adequacy reporting identified by ESO, and could be achieved using information already available to AEMO (provided by participants as part of the Stage One ECGS reforms).[3] This increased visibility of supply and demand conditions could enable participants to make more efficient decisions. If seasonal PASA reports are developed (as outlined by ESO), these should also provide an assessment of historic forecasts relative to actuals, noting this can assist with understanding the level of uncertainty associated with current forecasts and inform the need for any future methodology changes.

We note longer MT PASA timeframes (12-month and 24-month) are also being considered which would require participants to provide additional information. As noted by ESO, extensive participant reporting is already occurring, and reporting obligations introduced as part of the Stage One ECGS reforms have resulted in instances of data duplication.[4] Establishing a 12-month or 24-month gas PASA would increase the administrative burden on participants, for limited additional benefit given both the annual Gas Statement of Opportunities (GSOO) and Victorian Gas Planning Report (VGPR) provide a longer time view on the supply / demand outlook.

Origin agrees with ESO's overall observation that the current rules and AEMO procedures / guidelines do not sufficiently define what constitutes a threat and that current signalling mechanisms may not provide participants with a clear and objective understanding of their potential severity. We therefore generally support the development of an improved threat signalling mechanism. However, careful consideration would need to be given to the alert levels and associated threat definitions to ensure the signalling mechanism provides meaningful information in the context of the ECGS. As noted above, the gas system's reliance a few key pieces of infrastructure means an approach similar to the NEM's Lack of Reserve framework (which is based on an 'N –X' contingency type approach) would not be practical, as it would likely show the market is in a constant reliability warning / emergency state.

Origin generally supports transparency around the outlook for gas supply and infrastructure capacity. Given the long-lived nature of gas assets and the difficulties in providing accurate long term production forecasts, it is not clear a notice of closure framework would provide an effective mechanism, or resolve any fundamental shortcoming within the existing framework. There would likely be greater merit in

[3] Consultation Paper, p. 38
[4] Ibid, p. 38

supporting additional information provision around reserves and field production forecasts, as this would promote efficient planning and investment decisions.[5]

3. New obligations on participants

Origin is not supportive of introducing new obligations on participants that require them to provide information to AEMO on their supply arrangements, or powers to compel certain parties to contract *sufficient* storage / supply to manage extreme peaks and / or supply shortfalls.

Market participants already have strong incentives to ensure they can cover their peak demand to avoid exposure to purchasing spot gas at potentially high prices. Compelling parties to contract storage / supply could impact commercial decision making and impede the ability of participants to efficiently manage their portfolio. This may give rise to perverse outcomes in circumstances where the obligation results in a retailer being compelled to sign an unfavourable supply contract that could see them incur a loss; or divert supply from its gas-powered generators to fulfil its obligation.

ESO highlight that the study conducted by Marsden Jacobs Australia's (MJA) found that "gas powered generation (GPG) forward contracting is much lower than it is for retailers because there is a significant degree of uncertainty surrounding when the generator will be dispatched and for how long, which can limit their incentive and ability to contract".[6] We agree with this finding, and do not consider it would be practical or efficient to require GPG to contract an arbitrarily determined volume of gas supply a year ahead and lock-in costs when there is significant uncertainty around their forecast load.

More broadly, Origin does not agree that establishing contracting obligations would be an effective mechanism in driving investment in new gas supply. A fundamental shortcoming of mechanisms of this nature is that they provide a relatively indirect (and consequently uncertain) means of facilitating new investment. This is exemplified in the NEM, where the Capacity Investment Scheme (CIS) is being developed to complement changes to market settings and provide a more direct and certain mechanism for ensuring investment in new firming capacity, despite the Retailer Reliability Obligation (RRO) being in place.

To the extent there are concerns about incentives for market participants to cover their demand and / or rely on spot market purchases, a more appropriate solution would be to ensure the facilitated gas market parameters are set at the appropriate level. Broader consideration should also be given to other measures that could be required to facilitate the required level of investment in new supply given the declining outlook for southern supply.

4. Demand management framework

ESO note that ACIL Allen's study found that some C&I users could offer demand response on a commercial basis, and these users can face significant barriers when using existing demand response mechanisms, with the main barriers being the time it can take these users to respond and the financial incentive provided by existing mechanisms. To better understand the effects and utility of an administered demand response mechanism a comprehensive cost-benefit assessment should be conducted that also considers the interaction of the mechanism with existing operational tools such as

[5] We note the new requirement for all producers to report twice yearly on the volumes they intend to make available to the domestic market over a 24-month outlook period (under the Mandatory Gas Code of Conduct) will assist in this regard.
[6] Consultation Paper, p. 52

the contingency gas framework, Gas Supply Adequacy and Reliability Conferences (GSARC) and the load curtailment framework.

Where a new framework is to be introduced, it would be important to incorporate checks and balances that mirror those applicable to the NEM's Reliability and Emergency Reserve Trader (RERT) mechanism. This would include ensuring any procurement of capacity is consistent with meeting a defined reliability need, and customers' values of reliability.[7]

5. Supplier of last resort role for AEMO

Origin does not consider a formal mechanism to allow AEMO to contract for supply, transportation or unused storage capacity to be necessary or appropriate. Such a mechanism would likely have the perverse effect of reducing incentives for market-led procurement of capacity, exacerbating the issue it is expected to resolve.

As noted earlier, market participants have strong incentives to ensure they can cover their peak demand. Access to alternate sources of supply provides participants with a range of options as to how to achieve this and efficiently manage their gas portfolios. In the event a supply shortfall is forecast, the supplier of last resort function would not serve to increase overall supply. Rather, it would likely lead to AEMO contracting gas that would otherwise have been available to market participants. AEMO-led procurement of supply in planning (e.g. at T-1 or earlier), rather than operational timeframes, could also give rise to unnecessary costs that would be borne by the broader market and ultimately consumers. This is because the procurement may be based on an uncertain view of demand (e.g. due to uncertainty around forecast GPG utilisation), and the supply / demand balance could materially improve closer to operational timeframes.

Allowing AEMO to contract unused storage / transport capacity could also have a distortionary effect on market-led procurement of capacity. AEMO would effectively be competing with market participants and there may be a level of information asymmetry between those parties that could result in inefficient market outcomes. Infrastructure operators would also have reduced incentives to improve the cost competitiveness of services if the supplier of last resort function leads to AEMO buying all uncontracted capacity (e.g. at storage facilities). Further, under a generalised cost recovery approach (e.g. through market fees), participants with contracted capacity would be exposed to additional charges associated with AEMO's procurement, undermining the overall benefits of proactively contracting the capacity.

Noting our concerns, should a formal supplier of last resort type function be established, it would need to be designed with a view to minimising the likely level of market distortion. Key issues for consideration would include defining a target level of supply / capacity based on a clearly identified need in operational timeframes, and ensuring costs are only recovered from those participants that are notionally creating the need for reserve procurement.

[7] NER cl. 3.20.2(b)(3)