

## **RELIABILITY AND SUPPLY ADEQUACY FRAMEWORK FOR THE EAST COAST GAS MARKET - STAGE 2 OF FRAMEWORK DEVELOPMENT | CONSULTATION PAPER**

Australian Petroleum Production and Exploration Association | 13 July 2023

**The Australian oil and gas industry is committed to providing a secure, reliable and affordable supply of natural gas to Australian households and businesses.** To deliver on this commitment, the industry requires a stable fiscal and policy environment that facilitates an open and competitive wholesale gas market.

**The overwhelming reliability and supply adequacy risk facing the east coast gas market are forecast gas shortfalls, in particular in southern states.** The Australian Competition and Consumer Commission (ACCC) continue to forecast structural shortfalls in the gas market as early as 2027, while government intervention in the market has yet to clearly address the need for new gas production.

**Government must therefore prioritize bringing on new supply to address forecast shortfalls and to ensure affordable, secure energy for all Australians.** The Mandatory Code of Conduct (the Code), which entered into force in July 2023, puts the government at the centre of the gas market. It is unclear how the market will behave under the new Code – in conjunction with the range of other market interventions over the past eight months – and what impacts it will have on investment in new production to address the forecast shortfalls in the medium- to long-term. Whether it be within the framework of the Code, or separately, government must prioritize removing barriers and putting in place the policy drivers necessary to facilitate the investment in new gas supply needed to address forecast shortfalls in the gas market.

**APPEA recommends further consultation and evaluation of the proposed Stage 2 of the Reliability and Supply Adequacy Framework, which in its current form does little to address the reliability and supply adequacy risks facing the market and, in some instances, may exacerbate future supply constraints.** Given the complexities and technical nature of the framework, it is recommended that longer and more extensive consultation should be conducted with industry and market stakeholders along with an appropriate evaluation of their effect on the gas market, to provide a more complete perspective of the reforms before they are introduced.

Further APPEA comments and recommendations include:

- **The establishment of a useful reliability standard and additional monitoring and communication tools can be achieved without additional administrative burden on market participants.**
- **The proposed reliability and supply adequacy management tools should be reconsidered in consultation with industry as they are largely misaligned with the operation of the gas market and are expected to have limited impact on potential peak shortfalls and no impact on structural shortfalls.**
- **Stage 1 of the Reliability and Supply Adequacy Framework should be reviewed as part of the Stage 2 development and implementation process to gather industry and stakeholder feedback on performance to date and to ensure it is fit-for-purpose.**

APPEA and its members remain committed to working with government to ensure reliability and supply adequacy of the east coast gas market.

The Australian oil and gas sector's contribution to the economy and to reaching net zero is outlined in Annex 1.

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## COMMENTS AND RECOMMENDATIONS

**Government must prioritize bringing on new supply to address forecast shortfalls and to ensure affordable, secure energy for Australian households and businesses.**

**The Australian Competition and Consumer Commission continue to forecast structural shortfalls in the gas market as early as 2027, while government intervention in the market has yet to clearly address the need for new gas production.** The Australian Competition and Consumer Commission (ACCC) in their January 2023 *Gas Inquiry 2017-2030 Interim Report* highlight that structural shortfalls could occur as early as 2027, with potential shortfalls in peak periods as early as winter 2023. Should shortfalls be allowed to eventuate they will have a significant impact on the economy, including risking energy security and exacerbating cost-of-living pressures for all Australia households and businesses. The ACCC state that shortfalls “*would place continued upward pressure on prices in the domestic gas market, as well as pressure on the electricity market.*”

**Government must prioritize removing barriers and putting in place the policy drivers necessary to facilitate the investment in new gas supply in the areas it is needed to address forecast shortfalls in the gas market.** Barriers to new gas supply persist, including constraints on gas exploration and development in southern states, lengthy and uncertain permitting processes, as well as government approvals that are at risk of appeal. Further, a stable investment environment must be created that gives long-term confidence that investments in new gas production can make a satisfactory return on their investment over the lifetime of the project.

**It is unclear how the market will behave under the Mandatory Code of Conduct, which mutes the normal market price signal to bring on new supply and limits the confidence of producers to invest.** The Mandatory Code of Conduct (the Code) puts the government at the centre of the gas market. The Code entered into force in July 2023 and is based around a capped wholesale prices combined with automatic exemptions for small domestic-only producers and negotiated conditional exemptions for all other producers. The structure of the Code establishes a facilitated gas market that mutes the normal market price signal to bring on new supply and limits the confidence of producers to invest in capital intensive, long-payback period projects. Initial indications are that indicative supply agreements from producers have focused on near-term supply with “*indicative domestic supply commitments under the new framework of at least 260 PJ to 2027*”.<sup>1</sup> It is unclear how these indicative supply commitments will translate into enforceable commitments under the Code, or if/how the Code will create the conditions

<sup>1</sup> The Hon Jim Chalmers MP et al. media release, June 2023: *New Gas Code secures supply at reasonable prices for Australian users*

for investment in new production to address the forecast medium- to long-term shortfalls. This uncertainty is exacerbated by the range of gas market interventions and related policies over the past eight months, all of which may affect reliability and supply adequacy, including Stage 1 of the Reliability and Supply Adequacy Framework, the Australian Domestic Gas Security Mechanism (ADGSM), new disclosure obligations under Part 18 and 27 of the National Gas Rules (NGR), as well as the reforms to the Safeguard Mechanism.

**The variability of gas demand, combined with the long-lead time nature of bringing on new material volumes of gas supply make the task of matching supply and demand and ensuring adequacy of supply particularly challenging outside of a competitive market.** Demand for gas, in particular for gas power generation as it is increasingly called on to firm renewable generation, is heavily dependent on a range of factors exogenous to the gas market such as weather, renewable roll-out, renewable output, and coal power output. It is therefore inherently difficult to accurately forecast the demand for gas in advance. Even at a month or quarter ahead period this can be difficult, as seen with the Australian Energy Market Operator's (AEMO) underestimate of gas power generation requirements for 2022 and overestimate to date for winter 2023. At the same time new gas supply is long-lead time, requiring well in excess of three years to bring on new material volumes of gas supply. This is even more so when considering the medium- to long-term need to bring on supply from new, greenfield developments which will require multiple phases of permitting, fund raising, comprehensive community engagement, exploration and characterisation, site development, infrastructure development, etc. and all during a period of investment uncertainty created by ongoing and fragmented regulatory intervention measures.

In an open competitive gas market, supply and demand modelling and price forecasting, combined with broader market and environmental assessments together underpin private sector investment in new supply. However, in a heavily regulated market, producers are less able to rely on these underlying market fundamentals to provide the signal and confidence for new investment.

### Reliability standard

**The establishment of a reliability standard may improve the transparency and consistency of the market oversight, but the reliability and supply adequacy risks are already very well-known and are yet to result in new gas supply.** Improved consistency and standardization of reliability and supply adequacy assessments has merit and will improve the overarching transparency of the market, including market oversight and intervention. However, the overarching and urgent reliability and supply adequacy risks are very well understood and communicated by the ACCC, AEMO and others already, however, the proposed actions do not address these risks. Critical consideration is warranted into understanding why the current warnings of shortfalls are not leading to mitigating actions in the market or from governments, and if/how warnings from a strengthened reliability and supply adequacy framework will lead to different outcomes.

**The government should consider a two-stage process to developing a reliability standard to provide for a more robust evidence base for the final standard, with the first stage involving an initial enabling rule followed by a second stage to develop the metrics/thresholds for the standard.** Given the complexity in determining the form and level of a reliability standard, and the limited analysis/detail currently available to inform the process, it is recommended that the government initially focus on creating the enabling rule/law changes to establish the standard and the associated governance arrangements. The second stage of the process could then involve an independent body, such as the Australian Energy Market Commission, undertaking a longer and more extensive consultation along with additional analysis to establish the right metrics/thresholds for use in the final standard. Such an approach would ensure the final reliability standard is supported by a robust evidence base as well as by industry and market stakeholders.

**The reliability standard should address both total and peak supply and demand.** Assessing gas market reliability on a dynamic basis, considering both overall and peak supply and demand is critical. This is particularly the case given the role of gas in providing firming support to variable renewable generation and as the primary dispatchable generation available at short notice to address any unscheduled outages, as observed in winter 2022.

**The reliability standard should consider both total east coast domestic and regional supply and demand.** Given the nature of the east coast gas market, including market dynamics, trends and infrastructure, consideration needs to be given to both the overall market and to regional performance, in particular in southern states. In the ACCC's June 2023 *Gas Inquiry 2017-2030 Interim Report* it is highlighted that Victoria and New South Wales are becoming increasingly reliant on Queensland gas production to make up for state-level shortfalls from declining production and policy and regulatory barriers to bringing on new supply. At the same time, the pipeline infrastructure necessary to transport gas from north to south limits the amount of gas that can be diverted south, even if Queensland liquified natural gas (LNG) export contracts were to be interrupted. A regional reliability standard will further emphasize this situation and add weight to the rationale to reconsider gas policy in southern states to avoid energy security risks and cost-of-living pressures increasing in Victoria and New South Wales.

**The reliability standard can help underpin how, when and where AEMO can intervene in the market.** An agreed reliability standard developed in consultation with industry can provide a more transparent and predictable basis for AEMO intervention in the market. A clearer, quantitative basis for AEMOs application of reliability and supply adequacy management tools will improve the transparency and understanding of the market operation.

**The development of a reliability standard and enhanced monitoring and communication tools should aim to improve market transparency and planning and not form the basis of punitive action on market participants.** As indicated in preliminary consultation with the Department of Climate Change, Energy, the Environment and Water, the development of new standards and tools by the market operator should be principally about improving gas market planning and operation and should not be used to underpin punitive repercussions for market participants should real world outcomes deviate from best estimates at the time forecasts are made.

## Monitoring and communication tools

**Additional monitoring and communication tools may further improve the oversight of the market but will not address current reliability and supply adequacy risks to the market.** Improved reliability and supply adequacy monitoring and communication tools have merit and will assist with a common understanding of the current status of the market. Enhanced monitoring and communication tools will not however address the urgent reliability and supply adequacy risks facing the market.

**Monitoring and communication tools, including threat level reporting, needs to be clear and accurate so as not to create unintended perceptions of the risk to the market.** Monitoring and communication tools, including threat level reporting, can increase the transparency and understanding of the market. However, they need to be designed and implemented in a way that does not create inaccurate perceptions of the risks to the market, or lead to undue political, market (including unintended market manipulation) or public concern or confusion.

**Strengthening of market monitoring and communication can be achieved without an additional administrative burden on market participants.** Significant market and operational information is already provided to the market operator, including as part of the new disclosure obligations under Part 18 and Part 27 of the NGR. When considering putting in place enhanced monitoring and communication tools, the government should focus on data that is already provided by market participants and avoid placing additional administrative burden on companies.

**Notice of closure requirements in the gas sector may be of little value in addition to what is already provided to the regulator and need to take into account the inherent uncertainty and unpredictability of natural geological systems.** Notice of closure is very different in the gas industry to the electricity industry. Gas production is dependent on natural geological systems and as such, pinpointing exact times of closure is not possible. Production decline rates can be used to estimate a window of closure, but producers cannot reasonably be held accountable if this window is missed. If notice of closure requirements are applied to the gas sector they need to take these dynamics into account and not hold gas producers accountable if good faith estimates do not eventuate. Production and reserve information along with medium-term (two year) capacity outlook are already reported to AEMO and the ACCC and may be more relevant and useful information to the market than new notice of closure reporting requirements. Further, any new requirements must provide for full flexibility for infrastructure owners to act in response to unplanned or new events/information or activities/decisions regarding infrastructure.

### Reliability and supply adequacy management tools

**The proposed reliability and supply adequacy management tools should be reconsidered in consultation with industry as they are largely misaligned with the operation of the gas market and as such can be expected to have limited impact in addressing potential shortfalls.** The proposed reliability and supply adequacy management tools assume that there is uncontracted gas available during periods of tight market conditions, that new gas production can be brought to market in relatively short timeframes, and that there are significant gas demand centres that can be curtailed to alleviate potential peak shortfalls. These assumptions appear to be based heavily on experiences from electricity markets. However, the gas market fundamentally differs from the electricity sector – in the nature and timelines of infrastructure and investment and in commercial, market, and production dynamics. The electricity sector should therefore not be used as a template for a gas market reliability and supply adequacy framework. The proposed reliability and supply adequacy management tools therefore can be expected to have limited impact on potential peak shortfalls and no impact on structural shortfalls.

**Contracting obligation |** The variability of gas demand in gas power generation and amongst commercial and industrial customers coupled with the long-lead time nature of new gas supply means that a contracting obligation is unlikely to provide the signal necessary to bring on new gas demand and may add inefficiencies and costs to the market. Further, gas cannot be contracted if it is not being produced. In the electricity sector, new power generation can be brought on in as little as a few years, meaning a three year in advance signal may be sufficient to encourage investment in new generation assets. However, new gas supply, when taking into account the technical, regulatory and engagement requirements, takes significantly longer timeframes to bring online. In addition, policy and regulatory barriers continue to persist in southern states where new gas supply is so urgently needed.

**Administered demand response mechanism |** There may be some untapped demand response in the market from commercial and industrial customers, as indicated in the ACIL Allen *Gas demand management* study. However, the gas sector doesn't have the same large industrial users as the electricity sector does, with demand more disaggregated, so the system will be more complex to administer and will likely be less effective than in the power sector. The costs of a demand response mechanism must also be considered when comparing demand response with supply-oriented approaches.

**Supplier of last resort mechanism |** The proposed supplier of last resort mechanism assumes that AEMO can access gas supply that other market participants can't, which is very unlikely to be the case in a tight gas market situation. Looking forward, ACCC analysis forecasts structural shortfalls in the gas market from as early as 2027. These shortfalls are fundamentally due to natural declines in gas production, in particular in southern states, matched with muted market signals, an uncertain investment

environment and policy and regulatory barriers that together mean insufficient new supply is being brought on to meet demand. Accordingly, having AEMO in the market one year in advance, competing for already insufficient supply, is likely to exacerbate the inability of buyers to secure demand, rather than alleviate it. It also leads to a potential conflict where AEMO are acting as market operator while also acting in the market as a buyer and seller of gas. Further, the possibility of having a facilitated gas market through the implementation of this mechanism risks undermining the incentives for gas buyers to responsibly contract their demand and could lead to gas buyers/consumers delaying term contracting and avoiding transacting until the last possible moment.

### **Stage 1 Reliability and Supply Adequacy Framework review**

**Stage 1 of the Reliability and Supply Adequacy Framework was put in place as an emergency response with limited opportunity for consultation and engagement with industry and should be reviewed as part of the Stage 2 development and implementation process.** Stage 1 of the Reliability and Supply Adequacy Framework was intended to be a monitoring and escalation mechanism in the event that a serious system supply issue was emerging or underway. Based on six months' experience of Stage 1 implementation, there are areas where the Stage 1 framework could be improved or superseded by Stage 2, in particular around the 24 hours a day, 7 days a week nature of the monitoring requirements – even when system adequacy is not in question – as well as the pecuniary penalty regime around information provided to AEMO that has limited value in forecasting, preparing for, or responding to an escalating supply situation. Further, Stage 1 actions may be having perverse impacts on the market already for example, with limited incentives for parties to contract for peak shaving products that AEMO can confiscate at cost. Stage 1 of the Reliability and Supply Adequacy Framework should be reviewed as part of the Stage 2 development and implementation process to gather industry and stakeholder feedback on performance to date and to ensure it is fit-for-purpose.

APPEA and its members remain committed to working with government to find an effective, workable, and sustainable way forward that ensures sufficient supply and puts downward pressure on prices.

Yours sincerely



**Samantha McCulloch**  
Chief Executive

## ANNEX 1: THE AUSTRALIAN UPSTREAM OIL AND GAS INDUSTRY

The Australian oil and gas industry has invested well over \$400 billion in the Australian economy undertaking exploration and developing natural gas production, transport, liquefaction and export facilities over the last decade. A further \$27 billion commitment has been made in the past 18 months.

This investment will deliver returns for Australia for decades to come, through increased gas supply for Australian customers, export revenue, jobs, and in payments to governments in royalties and taxes – nearly \$65 billion<sup>2</sup> in payments have been made to government over the last decade.

LNG is now Australia's second largest export commodity after iron ore, with export revenue of more than \$91 billion in 2022-23.<sup>3</sup> As well as providing a significant return to the Australian economy, this LNG export industry is also a key enabler of domestic gas supply.

The oil and gas industry supports 80,000 jobs directly and indirectly in Australia and hundreds of thousands more in manufacturing.

Investment in new gas supply for the east coast market is critical to the ongoing functioning of a stable, reliable electricity market and affordable domestic gas supply while the broader energy market transitions through the closure of coal-fired power generators, the construction and grid connection of new renewable projects and the implementation of storage or peaking capacity to firm renewables.<sup>4</sup>

The industry is pivotal to reaching net zero, supporting the transition away from coal, providing the firm dispatchable energy required to unlock our renewable energy potential, and powering Australian industries across the economy. The industry is also central to delivering step-change technologies including carbon capture, utilisation and storage (CCUS) and low-carbon hydrogen.

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<sup>2</sup> See [Media Release: Oil and gas industry helps bankroll public services despite pandemic challenge | APPEA](#) and [Historical-Summary-2019-20.pdf \(appea.com.au\)](#) for more information. Over and above this, Australia's LNG exporters are set to almost triple their financial contribution to the public this financial year, forecasted to pay an extra \$9 billion to federal and state governments. New preliminary forecasts released in October 2022 revealed the gas export sector is estimated to pay around \$13 billion during 2022-23 – up from \$4.8 billion forecast for last financial year (see [Media Release: LNG exporters forecast to pay extra \\$9 billion to governments as tax and royalty collections almost triple | APPEA](#) for more information).

<sup>3</sup> See [Office of the Chief Economist - Resources and Energy Quarterly - September 2022 \(industry.gov.au\)](#) for more information.

<sup>4</sup> For example, the Australian Energy Market Operator's (AEMO) recent *2022 Integrated System Plan* (available at [AEMO | 2022 Integrated System Plan \(ISP\)](#)) confirmed the long and enduring value of natural gas partnering with renewables with the report finding (page 57): *"Peaking gas-fired generators will play a crucial role as significant coal-fired generation retires, as an on-demand fuel source during extended periods of low VRE output, and to provide power system services for grid security and stability and High renewable output and high demand – gas is needed to meet the demand peaks just after sunset, and to keep going through the night to cover wind variability."* See [Media Release: 'Crucial' role for gas powering electricity grid for decades: AEMO report | APPEA](#) for more information.