

Future Gas Strategy

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Introduction

ACCI welcomes the opportunity to contribute to the consultation on Australia's Future Gas Strategy and to assist in the development of reforms needed to address the gas security, reliability and affordability of gas for user and LNG exporters over the next three decades and beyond.

ACCI has long advocated the need to develop a comprehensive National Gas Strategy, to provide stability to the gas market and boost investor confidence. A holistic strategy is needed to increase competition, create a more interconnected network, and improve the efficiency and effectiveness of the gas market. To be consistent with the National Gas Objective, the strategy must be consumer focused, centred on providing secure, affordable, and reliable supply to gas-reliant residential, commercial and industrial customers. At the same time, it needs to support the LNG export sector, a major contributor to Australia's trade balance and GDP, and limit any disruptions to this trade.

The Future Gas Strategy must recognise that gas will have an ongoing role in Australia's energy market during the energy transition. Gas will continue to be required to support the electricity network and commercial and industrial gas-reliant businesses over the next thirty years and beyond. It will be some time before alternatives technologies are developed to a point where they are economically viable and can be scaled-up to a point where they can replace gas, such as battery and pumped hydro to provide the firming capacity in the electricity network, and green hydrogen as feedstock in chemicals or the high heat requirements of heavy industrial applications.

Therefore, in addition to its emphasis on shifting demand, the future gas strategy must focus equally on achieving a functioning competitive gas market, by improving its efficiency and effectiveness, increasing competition and removing supply constraints. This must include boosting supply through increased exploration and the development of gas resources on the east coast.

Gas Demand in Australia

Gas in electricity generation

The Government has committed Australia to an emissions reduction target of 43% below 2005 levels by 2030 and net zero by 2050, which includes a target for 82% renewable electricity production by 2030.

As Australia progresses toward a net-zero emissions future, gas will continue to play a critical role in supporting Australia's energy transition, by complementing the expansion of renewable sources in energy sector. Gas offers reliable and dispatchable electricity generation, which will increasingly be in demand as coal-fired generators are retired in the medium to longer term.

By 2050, the NEM is forecast to nearly double its current capacity of 180TWh of electricity to industry and homes per year to 320 TWh.¹ Gas is expected to play a critical role in the electricity network over the time horizon to 2050, with peaking gas-power generators maintaining grid security and stability, particularly following unexpected outages or earlier than expected coal-fired power generation withdrawal. Gas is currently the lowest cost option to replace coal in providing this firming capacity. It also has a much

¹ AEMO 2022, Integrated System Plan

lower emissions intensity (i.e. CO₂ per unit of energy produced) than coal, so will contribute to lowering overall emissions from the energy sector.

With coal-fired generation expected to exit in the medium and longer term, gas power generation will be critical to maintaining grid security and stability. The Australian Energy Market Operator's (AEMO's) Integrated System Plan (ISP) for the electricity sector shows the demand for peaking gas for power generation will increase the demand for gas by almost half again in volume terms, from 7 GW in 2022 to 10 GW by 2050, although its proportional contribution to total electricity supply will fall.²

There are major and urgent pressures for investment in new gas power generation to keep pace with the energy transition and retirement of coal generation. With the recent closure of the Liddell Power station³ and four more coal-fired power stations scheduled to close in the next decade, urgent investment in new generation capacity is needed to maintain the stability of the electricity network.

In 2023, around one third of electricity supply in the National Electricity Market (NEM) is provided by renewable sources on average, with coal-fired generation accounting for 60% and gas power generation accounting for 7%.⁴ With 8.3 GW of firm capacity set to exit the market as coal generators retire over the next decade, gas generation will play an increasingly important role in providing stable dispatchable electricity, particularly during peak demand periods.

In the medium term (i.e. next 30 years) at least, new investment in gas power generation (GPG) is needed to stabilise the electricity network, until alternative forms of firming capacity, such as battery and pumped hydro generation, are developed to the point where they are economically viable and can be scaled up to meet demand.

The AEMO Electricity Statement of Opportunities is flagging project delays in the development of new renewable generation, storage and transmission, as a risk to effectively replace retiring coal generators.⁵ Reliability is forecasts to worsen across the NEM regions, with unserved energy (demand that cannot be supplied) forecasted to go above the reliability standards in all mainland NEM regions by 2031-32. In NSW and Victoria, the threats are more imminent, with these states expected to breach reliability standards as early as 2025-26 and 2028-29 respectively.

Similarly, the Australian Energy Regulator's (AER's) State of the Energy Market 2023 highlights the coordination challenges required to ensure a new renewable energy generation is built before existing coal-fired power plants retire, stressing, that it is vital that coal exits in an orderly way.⁶ While the pipeline for announced renewable energy investment appears healthy, not enough of this is committed. The need for new investment is urgent and widespread across the NEM to ensure the reliability and security of the system.

This illustrates that existing and committed gas generation will increasingly become an important source of dispatchable electricity supply as coal generators retire, particularly given the delays in building deep storages such as Snowy 2.0 and other pumped hydro projects. Gas generators will increasingly be relied on to underpin the power system, responding to sudden changes in the supply demand balance, managing extended periods of low renewable generation and providing critical power system services to maintain grid security and stability.

² AEMO 2022, Integrated System Plan, pp. 11, 57.

³ State of the Energy Market 2023, p. 6

⁴ DCCEE 2022, Australian Energy Update 2022

⁵ AEMO 2023, Electricity Statement of Opportunities

⁶ AER 2023, State of the Energy Market 2023

Gas as a heat source in homes and small businesses

In 2022, domestic consumers in eastern Australia consumed approximately 590 PJ of gas.⁷ Among them, residential customers and small business made up 33% of the total domestic gas demand. These customers primarily rely on gas as a heat source, offering some potential for demand reduction in the medium term as they shift towards electrification.

Many small businesses recognise the need to transition to more energy efficient technologies. Not only is this transition necessary to support Australia's move to net zero emissions by 2050 but it also assists in reducing energy bills, which is desperately needed as costs of doing business continue to escalate.

Small businesses are currently experiencing significant and increasing imposts to how they do business. There are a number of measures that have been recently implemented, or will be shortly, which small businesses will need to comply. These often come with significant compliance costs, which many small businesses are struggling to meet as the cost of living pressures rise.

As the consultation paper identifies, there are often high upfront costs when businesses transition from gas to electricity. At a time when they are struggling to stay financially viable, most businesses don't have the capacity to invest in new equipment, particularly when their existing equipment is still working effectively. Further to this, for many businesses the swap to electrification is not just the replacement of one appliance with another, it involves a change to their operations, which may require a whole refit. This requires considerable time for planning and a disruption to their operations, which most businesses simply cannot afford in the current economic environment. Targeted government support to financially assist small businesses to electrify their operations and manage these costs is critical.

While some Government support is available or foreshadowed, many of these are short-term programs which have limited funding allocations and can be exhausted quickly. These supports are welcomed but it is crucial to acknowledge that longer-term, sustained support for businesses is required. As an example, the Small Business Energy Incentive, if it is able to be legislated in the last few sitting days before the end of 2023, it will be available to business for less than seven months. Yet, as previously mentioned, given the time required for planning, design and installation, seven months is not sufficient time for a business to take advantage of the Incentive. A comprehensive, long-term strategy that encompasses incentives, capacity-building, and, where appropriate, product standards or regulation is needed. Such a strategy would establish a continual framework for business investments in high-quality electrification and energy efficiency upgrades.

Although the Government has introduced positive initiatives and taken steps to support businesses with this transition, the emphasis should be on implementing enduring measures rather than short-term, time-limited and capped programs. This approach not only reduces complexity, as businesses would not have to continuously grapple with the intricacies of new programs, but also lessens the administrative burdens on both Government departments and businesses to implement.

Solar projects can complement investment in other energy efficiency projects, magnifying the benefit of the conversion from gas to electric appliances and investment in more energy efficient appliances.

Transitioning to solar can often be a cheap way for businesses to adopt more energy efficient technologies and reduce energy costs. However, incentives are still necessary to encourage uptake, especially for small businesses who would struggle with the upfront costs. Unfortunately, many existing grant programs supporting more energy efficient operations exclude solar projects from funding. Additionally, not all small and medium-sized businesses own the premises on which their business operates – many are leasing

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their premises, so wouldn't receive the full benefits of a solar project, so may not be able to leverage an available incentive to invest in solar.

For businesses looking to operate in a more energy efficient way, ACCI believes that all avenues should be made available to them to do so.

Commercial and industrial gas users

Commercial and industrial (C&I) users of gas include those using gas as feedstock for a wide range of products such as fertilizers, plastics, explosives, clothing, and medicines, as well as those requiring gas for high heat applications, such as in the smelting metals and minerals, particularly in the steel, aluminium and critical minerals. There are currently no ready alternatives to the use of gas in these applications. Therefore, gas will continue to be relied on to support these industrial applications until new processes using alternative feedstock/energy sources can be developed at a commercial scale and cost competitive.

The gas market dysfunction in recent years has been particularly damaging to C&I gas users. Natural gas is the main input for these manufactures and can represent up to three quarters of their operating costs. C&I gas users nearing the end of their gas supply contracts have found it extremely difficult to negotiate new long-term contracts at affordable prices. Many have been forced to accept short-term (12 month) contracts whilst others have been unable to secure a contract at all and left to source their gas through the highly volatile spot market. C&I gas users relying on the volatile spot market have been paying up to 150 per cent higher prices than they were paying on long term contracts. Unless they can pass these costs onto the customer, C&I gas-reliant businesses struggle to remain viable.

The inability to secure long-term contracts has ramifications for investment and the ongoing operation of many businesses. Many gas users have maintenance schedules that align with their gas supply contracts, as they will often need to shut down operations for three to six months to carry out major refurbishments, upgrade or replacement of machinery. If these C&I users cannot secure long-term gas contracts at reasonable prices, it limits their ability to secure finance to support this investment.

High prices and inability to access long-term contracts has contributed to the closure of several gas-reliant businesses in recent years. These include Dow Chemicals in Melbourne, RemaPak in Sydney and Claypave in Queensland. More recently, Incitec Pivot ceased manufacturing Ad Blue at its Gibson Island Plant due to the inability to secure long-term contracts for affordable gas supply from 2023 onwards. AdBlue converts nitrous oxide in the exhaust gas of diesel engines into nitrogen and water which lowers transport sector emissions, so a shortage of AdBlue is likely to lead to an increase in emissions from the transportation sector.

It is important that energy policies, particularly as they relate to gas, align with the industry policies. A key focus of the industry policies, such as the National Reconstruction Fund, is on increasing domestic processing of minerals, metals, and agricultural produce onshore. Yet, the consultation paper fails to recognise that these processes will substantially increase the demand for gas, as alternative high-heat technology (eg. green hydrogen) is still very much in the development phase and untested. If businesses cannot access long-term contracts for secure, reliable affordable gas, investment in these new processing facilities will not proceed and the government industry agenda will fail.

Green Hydrogen and Biogas

The Australian Government has identified green hydrogen as a potential alternative to gas to facilitate deep cuts to emissions across energy and industrial sectors. As part of the National Hydrogen Strategy,

it is being proposed to introduce hydrogen to the gas distribution network by mixing it with the natural gas. However, in the current network there is only the potential to mix only around 10% of hydrogen with gas without major changes to the pipeline infrastructure and appliances that use gas.

Green hydrogen technology is still at its nascent phase. There is much uncertainty around how long it will take for it to be economic and produced at a commercial scale to facilitate the phase out of natural gas. It is also unclear whether gas pipelines will have an ongoing role in transporting hydrogen or whether hydrogen will require a new transmission and distribution networks to be developed.

Biogas is another potential alternative that is being considered. Biogas is seen as a more favourable choice to support industry decarbonisation than hydrogen, as it enables the use of existing technology without the need for appliance or equipment upgrades. However, it comes up with its own limitations, with insufficient supply of waste organic feedstock to produce commercial quantities of biogas (and biomethane). There are also concerns around the use of commercial crops as feedstock for the large-scale production of biogas about, as it will compete with food production and expanding the cropping area may have impacts on native vegetation.

Australia's LNG reputation

Australia's LNG exports play a central role in regional energy security, accounting to 21% of global LNG exports. Most (around 93%) is sold into East Asia - Japan, China, Korea, Taiwan, and India. International demand for gas is expected to continue to grow under most decarbonisation / energy transition scenarios. Australia has a reputation of a reliable energy supplier and stable and secure destination for investment in energy production, which we need to maintain.

It needs to be recognised that the LNG export sector is a major contributor to Australia's trade balance and our GDP. The importance of this trade should not be overlooked. Since the opening of the three export facilities in Gladstone in 2015-16, LNG exports have grown to become Queensland's second largest merchandise export after coal.⁸ With European gas in a state of disarray due to Russia's war in Ukraine, the value of Australia's LNG exports has risen even higher. The Australian Government's *Resource and Energy Quarterly* report expects LNG export values to reach \$90 billion in 2022-23 FY, an increase of nearly \$20 billion from 2021-22 FY.⁹

Given the value to Australia, it is important that the LNG exports are not hindered by governments in the near- and long-term. To continue to fulfil both domestic demand and LNG export contracts, all levels of governments should focus on ways to increase gas supply, rather than the imposition of gas export controls through the ADGSM, Heads of Agreement, Mandatory Code of Conduct or other regulatory measures.

The significance of protecting international LNG contracts goes beyond the exporting of LNG. Government intervention that prevents LNG producers from meeting their contractual obligations places Australia's trade relations and reputation in jeopardy, harming negotiations and exports of other Australian commodities. If Australia is judged to be an unreliable trading partner, then LNG importing countries will look for alternative sources, broadening their supply chains and decreasing their activity with our LNG producers. The damage incurred on these relationships will spill over into the trading of other commodities with nations becoming increasingly wary of doing business with Australia.

⁸ Department of Industry, Science and Resources, *Resources and Energy Quarterly*, December 2022 [pg.71-80]

⁹ Ibid

The need to protect these long-term contracts is three-fold: support the industry providing a significant boost to the Australian economy; maintain strong international relationships and trade reputation; and maintain the confidence of international investors in Australia.

It is important to acknowledge that LNG will continue to be a major commodity export for Australia for many decades to come, supporting other countries in our region through their energy transition. Australia should not prematurely end these exports. Australia should not continue to be caught in debates about one type of energy over another. Further, maintaining Australia's reputation as a reliable trade partner is essential if we are to attract future investment in hydrogen and other alternative green energy sources.

Gas supply in Australia

Forecast shortfalls in gas supply

Earlier this year, AEMO published the 2023 Gas Statement of Opportunities (GSOO) which assesses the adequacy of the physical supply of the gas network over a 20-year horizon for all the Australian territories, except Western Australia.¹⁰

The following insights should be noted:

- In short-term, gas supply in southern states is at 'risk of peak day shortfalls' from winter 2023 when modelled under very high demand conditions.
- In the medium-term, annual physical gas supply shortfalls are forecast from 2027. This is exacerbated by stalled investment in key long-term projects.
- Winter peaks in gas demand are forecasted to grow due to increased electrification of heating loads and low variable renewable energy (VRE) production in winter periods.
- Declining gas supply is mainly driven by traditional sources in the Gippsland region nearing the end of their operational life, limitation on the Moomba to Sydney pipeline and Southwest Queensland pipeline capacity to transport gas from Queensland to southern states (where shortfalls are forecasted).
- Physical gas supply shortfalls are forecasted from 2027. In the absence of the development of new gas reserves, LNG supply shortages of up to 107 PJ may exist in 2026, increasing to 342 PJ in 2028.
- Some contracted LNG export volumes may need to be redirected to support domestic demand.

AEMO has also identified that gas supply from 2P, 2C and prospective reserves and resources is becoming increasingly uncertain, with a growing gap between supply and demand in future years. It has revised down its previous forecasts of 2C reserves by 28 per cent or 16,000 PJ based on updated data and uncertain projects.

In the longer term, new sources of supply will be needed even though annual domestic consumption is forecasted to decline. The development of new gas production, particularly in the Southern States, is needed to offset declining production.

¹⁰ AEMO 2023, Gas Statement of Opportunities.

https://aemo.com.au/-/media/files/gas/national_planning_and_forecasting/gsoo/2022/2022-gas-statement-of-opportunities.pdf?la=en

It is clear gas reserves must be developed to maintain current production levels and meet future domestic and international LNG demand forecasts. New gas reserves, such as the Surat and Beetaloo basins and securing the investment needed to begin production from the Narrabri reserve are essential to avoid potential gas shortfalls, commencing later this decade.

Gas Regulation in Australia

Since the opening of the east coast LNG export terminals in Gladstone Queensland in 2016, Australia's east coast domestic gas-reliant industries have faced increasingly tight supply constraints and a dramatic increase in prices. Australia has abundant gas resource on the east coast but investment in gas field developments is being held back by regulatory barriers.

Recent government intervention in the gas market, through the introduction of a price cap and mandatory code of conduct, has provided some level of short-term relief to the gas market. Similarly, the recent changes to the ADGSM regulations making it easier for the Minister for Resources to activate it and the negotiation of the Heads of Agreement with gas producers, have redirected gas supply to address shortfalls in domestic demand in the short term. However, this heavy-handed regulation is only likely to limit future gas supply and lead to higher prices in the long-term, as they disincentivise crucial investment in exploration and the development of new gas supply. This market intervention creates uncertainty and discourages private Australian and international investment in exploration and the development of new gas reserves.

Similarly, the recent Safeguard Mechanism Reforms, which require all new gas fields supplying LNG production to achieve net-zero scope 1 emission from the first day of operations, will stifle new investment in gas production.

It is essential that the Future Gas Strategy focus on the removal of regulations such as the ADGSM and Mandatory Gas Code of Conduct that provide a short-term fix but cause longer-term impairment to investment in the sector and ultimately future gas supply.

Further, extensive environmental regulatory barriers and the regulatory approval processes, which are often duplicative across federal and state/territory regulations, are hindering investment in gas exploration and new gas field developments. In Victoria, despite dwindling supply from the Gippsland and Otway Basins, the Victorian Government has a moratorium on off-shore unconventional (coal-seam) gas exploration and all forms of on-shore (conventional and unconventional) gas exploration. Effectively banning the opening of new gas reserves, Victorian C&I gas users are becoming increasingly reliant on paying extra for gas transported from northern Australia. In NSW, the 'go-slow' on environmental assessment of unconventional gas field development has delayed increased supply of gas to the network. The Narrabri gas field development, first proposed in 2016, has been subject to extremely slow approval processes. While it has finally gained regulatory approval, the proponent is yet to make its final investment decision. With NSW importing 98% of its gas requirements from other states, improving the regulation of gas field development would greatly increase supply to the market, and improve the timeline.

Federal and state governments must focus attention on lifting restriction on gas exploration and extraction, as well as improving and simplifying the regulation to fast-track new gas field development. Governments must do more to increase the supply to meet future domestic and LNG export demand and contribute to affordable gas prices.

Bipartisan support at all levels of government

Energy policy is not solely a Commonwealth responsibility, so to achieve a long-term Future Gas Strategy, the government must work with its state and territory counterparts to bring about a national agreement. It also needs to work through the Parliament such that, to the extent possible, the strategy and policies that support it have bipartisan support from the major parties.

The Commonwealth has an important coordinating role in influencing the states to lift restrictions of gas exploration and extraction. It also needs to work with its counterparts to better harmonise environmental regulation across the states and territories and remove blanket moratoria on gas exploration and development in their jurisdictions.

A national agreement on the Future Gas Strategy will provide the long-term policy certainty needed to create better functioning gas network, that supports private sector investment, guarantees security of supply, increases competition and reduces costs.

Reconfiguring the transmission network

Manufacturing industries that rely on gas as an energy source and/or as a feedstock are mainly based in the southern states, but the southern gas reserves that they have previously relied on are being depleted. While large new gas reserves have been identified and are being developed in Northern Australia (Queensland and Northern Territory) the transmission network (which had up until now been developed to transport gas south to north) is not sufficiently developed to transport gas north to south.

The Future Gas Strategy needs to provide the right commercial incentives to drive the necessary investment to reconfigure the transmission network to transport gas from north to south. Significant investment is being made in to reconfigure the electricity network to support the expansion of renewable energy through the *Rewiring the Nation* program and similar investment is needed to restructure the gas transmission network. Consideration should also be given to incentivise manufacturing industries to move north and west, closer to the gas resources. Locating gas users closer to gas resources and a more interconnected network that improves the efficiency and effectiveness of the gas transmission will lower costs to domestic gas-reliant industries and provide greater certainty of supply.

Further, gas infrastructure has a critical role in helping Australia achieve its net zero emissions targets. Repurposing natural gas pipelines to transport renewable gases, such as biogas and hydrogen, is a cost-effective and efficient way to achieve this. Renewable gas providers can utilise the pre-existing gas infrastructure, reducing the need for new investment and allowing for faster scaling of renewable gas production. Secondly, they can make use of existing gas pipeline networks, thus not having to go through the extensive regulatory process of approval for building the pipelines. Thirdly, technologies for converting natural gas infrastructure to hydrogen operation are already being developed in other countries.

Australia is behind other countries, particularly Europe, in terms of investigating opportunities for domestic renewable gas markets and repurposing gas infrastructure to transport renewable gases.

If gas transmission and distribution infrastructure is decommissioned, and the building of gas infrastructure is banned from new housing developments then there is a risk that regions in Australia will miss out on the opportunity to access renewable gasses in the future when they become commercially available in the market.

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The Australian Chamber of Commerce and Industry represents hundreds of thousands of businesses in every state and territory and across all industries. Ranging from small and medium enterprises to the largest companies, our network employs millions of people.

ACCI strives to make Australia the best place in the world to do business – so that Australians have the jobs, living standards and opportunities to which they aspire.

We seek to create an environment in which businesspeople, employees and independent contractors can achieve their potential as part of a dynamic private sector. We encourage entrepreneurship and innovation to achieve prosperity, economic growth, and jobs.

We focus on issues that impact on business, including economics, trade, workplace relations, work health and safety, and employment, education, and training.

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