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Prospective National Gas Reservation Scheme Review
Department of Industry, Science, Energy and Resources

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SUBMISSION ON THE REVIEW OF A PROSPECTIVE NATIONAL GAS RESERVATION SCHEME (PNGRS)

The Australian Industry Group (Ai Group) welcomes the chance to make a submission on the PNGRS Issues Paper (the Paper).

Ai Group is a peak national employer organisation representing traditional, innovative and emerging industry sectors. We have been acting on behalf of businesses across Australia for nearly 150 years. Ai Group is genuinely representative of Australian industry. Together with partner organisations we represent the interests of more than 60,000 businesses employing more than 1 million staff. Our members are small and large businesses in sectors including manufacturing, construction, engineering, transport & logistics, labour hire, mining services, the defence industry, civil airlines and ICT.

Our members include many industrial users of natural gas – some whose competitiveness is heavily affected by the price of gas, directly or through its influence on electricity prices; and many more whose business continuity is impacted by the security and reliability of gas supply. Our members also include some of Australia's gas distributors and pipeliners.

The Paper raises some specific questions for stakeholder feedback. However, Ai Group has some broader thoughts about the PNGRS Review that are not directly raised in those questions.

Ai Group's views

Conduct of the review

The Paper demonstrates a need for deep engagement with design and implementation issues. From this starting point there is a long way to go before any potential scheme could be legislated or negotiated and commence; and longer again before a prospective scheme could have a substantial impact on the Eastern gas market as a whole. We urge the Government to sustain deeper consultation and accelerate progress towards a clearer set of proposals.

Purpose of a PNGRS

It is important to think clearly about the purposes of a PNGRS.

Two main purposes could be articulated:

- Purpose A: As a long term safeguard against the risk of a shortfall in the adequacy of available supply to domestic gas demand, and the resulting scarcity pricing that would drive prices above international levels (the situation that loomed in early 2017);

This is the same rationale as that for the current Australian Domestic Gas Security Mechanism (ADGSM), but on an ongoing basis and expressed through a different mechanism.

This purpose might be met by an obligation to make gas available for local commercial offers, rather than to actually supply it; and/or an obligation that only kicked in when certain market conditions or policy declarations were in place (similar to the ADGSM, but applying to a broader category of new production rather than a subset of existing exports).

- Purpose B: As a means of partly or fully decoupling local gas prices from international influences, sustaining them on average below some metric of export price parity.

  This is quite distinct from current policy and would seem to require a broadly applicable obligation to actually supply at least the mandated share of gas to domestic customers where commercially viable (as opposed to where attractive by comparison to export).

  This purpose might evoke fears of an inefficient allocation of resources, with gas not going to its highest priced (and implicitly highest value) use. On the other hand, international gas markets and policies on energy and industry start very far from an efficient equilibrium.

A scheme designed for A will not achieve the goal of B and we should be clear about what we are choosing and why.

Demand side measures

While the Review is properly focussed on whether to adopt a PNGRS, the gas market analysis and restatement of existing initiatives makes it clear that not enough attention is being paid to demand-side measures. Investment in gas efficiency and fuel-switching can make a substantial contribution to averting the risk of gas shortfalls. As Ai Group has proposed in our recent Post Pandemic Policy Paper on Climate and Energy, the Government's energy and economic recovery strategies should include substantial demand-side initiatives, in addition to facilitation of supply, market reforms and security measures.[1]

Other market security options

A PNGRS should not be considered in isolation from other potential options to address the underlying challenges of security and/or competitive pricing. Alongside a PNGRS, and potentially in combination with it, the Government should consider other options to provide greater long term security to domestic gas users. These include:

- Extension of the ADGSM export control powers, which are currently set to lapse in 2023;
- Imposition of a national interest assessment process on new export-related gas developments, comparable to the US and Canadian approaches briefly considered in the Paper;
- Combinations of these options with different forms of PNGRS.

It is important to consider all the options. It would not be enough to conclude that a PNGRS is satisfactory or unsuitable in its own right. The underlying problems in gas need some solution, and that solution needs to be the best of the available options.

[1] Ai Group, *Post Pandemic Policy Paper: Climate and Energy* (August 2020) https://www.aigroup.com.au/policy-and-research/policy-papers/climate-energy/

Reservation design options

The paper does not go very far in considering the design details of a potential PNGRS, beyond outlining three broad models:

- Acreage reservation (associated with Queensland)
- Preferential reservation (associated with Victoria)
- Blanket reservation (associated with Western Australia)

However, policy settings within each broad model are extremely important to determining the feasibility, costs, benefits and overall impact of a PNGRS. We are going to need to go much deeper, and this detail will require extensive consultation.

Key elements of design include the following:

- Form of reservation
    - Does a PNGRS apply to specific new acreage, or to a percentage of all new production?
- Nature of obligations
    - Are covered entities required to offer gas for supply to domestic customers, or to actually supply it?
- Extent of reservation
    - How much gas resource is reserved?
    - Is this defined as an absolute number of petajoules; relative to total production; relative to domestic demand; or on some other basis?
    - Does the extent of reservation change over time, whether according to a pre-announced schedule, a formula, or on some other basis?
- Triggering
    - Does the obligation apply all the time, or is does it crystallise only under particular circumstances?
    - For example, could reservation be an option exercisable by the Commonwealth when it deems there is a risk of the local market being unserved (like the ADGSM)?
- Source of power and means of implementation
    - Would a PNGRS be implemented by the Commonwealth using its own heads of power (presumably over international trade), or by agreement with the States and Territories using their powers over onshore resources?
    - Either pathway may be quite complex and constitutionally innovative.
- Geographic coverage
    - Does a PNGRS apply Australia-wide; just to areas without their own reservation; or on some other basis? Would there be any differences in settings between the Western and Eastern markets?
- Temporal coverage
    - What gas resources or projects are sufficiently 'new' to be subject to a prospective scheme? What resources of projects are 'old' and free of the scheme? As discussed further below, this involves defining the critical date and critical actions that exempt a project from coverage.

- Adjustability over time:
    - Is there any ability to amend:
        - Overall scheme settings
        - Application to and treatment of new projects
        - Application to and treatment of operating projects that are subject to the scheme
- Governance and decision making
    - Who decides how much gas is enough to reserve, and where? What is the process? Is it reviewable?
- Relationship to State and Territory policies
    - Is there any connection between the application of a reservation within a jurisdiction and that jurisdiction's policy regime, such as the strength and timeliness of its approvals processes?
- Definition of domestic use and domestic customers
    - Who counts as a domestic customer? Does scrutiny of this extend beyond the point of first sale? Do customers have obligations, as well as suppliers?
- Enforcement
    - Who would enforce a PNGRS and what kinds of penalties would be involved?

Whether to adopt a PNGRS

Given the lack of clarity on any of the above design features, it is not possible for Ai Group to give a definitive recommendation in favour of or against the adoption of a PNGRS. It would be possible to design a PNGRS that was unmitigatedly destructive to economic development. It would also be possible (indeed very easy) to design a PNGRS that had no meaningful impact at all. We believe it is possible, though complex, to design one that has modest but meaningful overall benefits – though it is unclear if this would be better than other options.

We do support the need for a mechanism to provide greater security to domestic gas users, as part of a wider strategy for energy advantage and economic recovery. Whether this is an ADGSM extension, a national interest assessment or a PNGRS, the security measure must be designed and implemented to be functional and worthwhile.

Specific questions for stakeholders

How would a prospective national gas reservation scheme address a potential domestic gas shortfall and impact gas markets in the medium or the longer term?

Ai Group judges that concerns about a domestic gas shortfall from around mid-decade are credible but addressable.

The most recent Gas Statement of Opportunities was, on its face, quite reassuring about supply adequacy. Existing supply declined but there was little gap between expected new production and demand, and plenty of time to remedy any gap with fresh investment.

Shortfall is a greater risk than this suggested because:

- Existing local conventional supply from old fields is declining sharply
- The travails of the global oil and gas industry have slowed investment in new supply, including local unconventional fields, meaning some anticipated development will be delayed or cancelled
- Some international production may be reduced by financial problems, flowing through to global markets
- International demand for gas has been reduced by the pandemic and recession (though much less than oil demand), but will likely recover with economies in the medium term.
- There is thus a risk that declining old production, delayed new production and resurgent international demand coincide around mid-decade, creating an extremely tight local market.

A prospective national gas reservation scheme (PNGRS) could imaginably impact this risk in two very different ways, depending on design features and implementation:

- If successful, a PNGRS could guarantee enough local supply to limit the risk of shortfall.
- If unsuccessful, a PNGRS could discourage investment to the extent that it made a shortfall more likely. This risk is considered further in our answer to the investment question.

However, by its nature a prospective reservation would take a while to have a measurable positive effect. Exactly how long depends on:

- How long it takes to design and implement a scheme - we note that the current process envisages consideration by Government in the first half of 2021, but also evidences little thinking to date about detailed design. If a further design process, consultation and exposure draft is assumed, Parliament might not consider legislation until late 2021 and commencement earlier than mid-2022 is unlikely.
- Where the threshold for prospectivity is set. This is a product of critical dates and critical actions.
    - Critical date: Is this when the eventual Bill receives Royal Assent; an earlier date, such as 6 August 2019 when the Government announced the review of prospective reservation; or a later date, such as the financial year beginning no less than 12 months after the date of Royal Asset?
    - Critical action: What action is required before the critical date to escape the reservation - a final investment decision on field development (a fairly narrow exemption); acquisition of a retention lease (broad exemption); or something else?

- The growth rate of local consumption, exports and production
- The form of the reservation.
    - A field-by-field PNGRS might have more medium-term impact on adequacy if it was applied aggressively to a broad swathe of undeveloped fields. On the other hand, nothing guarantees that fields reserved in this way will actually be developed, even if 'use it or lose it' provisions apply.
    - A reservation requirement expressed as a flat share of all new production would build up quite gradually, in line with the development of new production to replace declines. This slow impact might be partially addressed by applying a higher rate in the early years of a reservation and reducing that rate over time as a higher share of total production was covered. In this scenario, to minimise incentives to delay development until reservation rates reduced, the rate for individual fields should be dynamic (able to vary over time in line with the preannounced schedule and conditions) rather than locked in at the time of development.

On balance, the ability of a PNGRS to address domestic supply risks is not possible to ascertain without a much more detailed engagement with design detail than is evident in the issues paper.

How would a prospective national reservation scheme affect investments in oil and gas projects?

The impact of a PNGRS depends on the purpose for which it is used and the detail of its design and implementation.

There are two main negative impacts that might be feared:

- To the extent that a PNGRS increases uncertainty about future decisions or the credibility of policy settings, it might cause an increase in the risk premium on investment, and a consequent reduction in investment.
- To the extent that a PNGRS actually traps some gas in the local market at a lower price than it might otherwise fetch overseas, it would decrease the marginal returns to gas development and the amount of development that happens.

There is also a potential positive impact on oil and gas investment. To the extent that a PNGRS provides greater confidence in the local economic benefits of development, it would strengthen the social license to operate and the support from community and industry stakeholders for development. That would be a significant improvement in the environment for an industry that has faced significant controversy and community resistance, which in turn has influenced government policy and regulation.

However, whether a PNGRS does any of this comes down to design, implementation, and the market context. We should think clearly about the nature of the models being considered.

Western Australia's reservation policy has clearly not been incompatible with immense investment by the oil and gas sector over the years. The idea that an Eastern or national reservation would necessarily lead to the collapse of oil and gas investment is absurd.

It is also important to recognise that even if the particular form of a proposed PNGRS was expected to reduce the marginal incentive to develop oil and gas reserves, and ultimately the total amount of gas development that takes place, this would not be a knockdown argument against a reservation. It would be a factor to weigh up against other impacts, including on domestic energy security, competitiveness of gas-intensive industries, and social license for the gas industry.

Previous analysis (including by the Centre of Policy Studies) indicates that the Australian economic

benefit of existing East Coast export-related gas development has been slight, particularly if ownership is taken into account.[2] Successive massive write-downs in the value of gas export investments over the past five years should make us cautious about simple assumptions that maximising further development will necessarily produce value for investors or Australia.

Furthermore, the most plausible outcome of intensifying global efforts to fight climate change is a substantial long term contraction in global gas demand, making production-maximisation less attractive.

The recent announcement of net zero emissions targets by China (by 2060), Japan and Korea (both 2050) is very significant in this regard. These countries bought more than 90% (by value) of Australia's gas exports in 2018.

It could be argued that if long-term demand for gas is likely to weaken, Australia should maximise production in the near term before the resource diminishes in value. This would be perverse in a climate policy context, but also seems ineffective: LNG markets are already awash with gas and new supply will not necessarily create its own demand.

What would be the impact of a prospective national reservation scheme on Australia's LNG trade?

If LNG investors or customers became concerned about a reservation policy, this might imaginably have two possible consequences:

- Legal action by LNG investors, seeking compensation for an acquisition of property by the Commonwealth on other than just terms; or
- Reductions in investment in new LNG capacity.

Neither seems like a serious fear in the context of a PNGRS.

While the impact depends on design detail, the prospective nature of a PNGRS greatly limits the range of potential effects on Australia's LNG trade. Resources already developed, whether specifically for LNG or otherwise, would not be subject to reservation. With a well-flagged and articulated scheme there should be no cause for concern on the part of LNG investors or customers.

Depending on the form and extent of reservation, LNG projects might face increased difficulty in backfilling with new gas supplies once the resources developed or contracted for their initial period of operations declined. However, this difficulty is not certain, and it would be hard to maintain that the potential future prospect of backfill with further not-yet-contracted gas supplies constituted a property right of certain value even if such difficulty eventuated.

The risk of reductions in investment in new LNG capacity depends in part on whether there are realistic prospects of such investment at all. Australia does have large reserves of gas, and it is likely that the total known resource will continue to grow for some time. It would be possible to expand production and exports. Indeed, there is significant underutilized capacity at existing LNG terminals in Eastern Australia, and capacity could be expanded somewhat if need be even without whole new liquefaction trains through modest investment in de-bottlenecking. This underutilized and latent capacity is large enough to absorb several hundred petajoules per annum more production, if it were available.

On the other hand, it seems increasingly questionable whether LNG export capacity will see

[2] Philip Adams, 2014. "**The Impact of LNG Export Expansion in Queensland, with special emphasis on the effects of increased gas prices**," Centre of Policy Studies/IMPACT Centre Working Papers g-250, Victoria University, Centre of Policy Studies/IMPACT Centre

substantial further investment. The immense loss of shareholder value associated with the Eastern Australian projects is cautionary. While Western Australian projects have been much more successful, the combination of global oil and gas sector turmoil in 2020, strong international supply and weak demand appears to be delaying further projects. Long term net zero emissions targets in major LNG markets, as noted above, are bearish for the demand that would underpin strong additions in export capacity.

What would be the quantifiable benefits of a prospective national reservation scheme for domestic gas users and for power generation?

No benefits can be meaningfully quantified without a detailed PNGRS design. However, two potential benefits for Australian energy users are possible and their impacts on gas users and electricity users are worth considering (in line with the scheme purposes canvassed in the opening section)

- Reduced risk that a shortfall drives local gas prices above export parity; or
- Potential sustainment of prices to local users below a metric of export parity.

As already discussed, a future shortfall is possible and a reservation could contribute to a strategy to avoid it, depending on design. In early 2017 a shortage of contractable gas briefly drove industrial offers to more than $20/GJ, up from the historic average of $3-4/GJ and the then-expected export parity range of $8-12/GJ.

The sudden recurrence of such extreme prices would be extremely painful for industry. In 2017 Ai Group received a range of feedback from business impacted by gas prices; more gas-intensive businesses typically believed they would be completely uncompetitive if such prices endured, while businesses with lower gas intensity and higher value add believed they could retain viability with some adaptation. It is important to note that the largest and most intensive gas users did not need to recontract during the period of these extreme prices, which was ended by supplier responses to the threat of Federal action.

Sustaining prices below export parity would be possible with a sufficiently aggressive reservation, with three limitations:

1. As previously noted, a PNGRS will take time to have any effect.
2. An excessively aggressive PNGRS – for instance, one that forced any would-be exporter to supply two petajoules to the domestic market for each PJ exported – could undermine new investment to the point that prices eventually rose rather than falling
3. Prices cannot be sustained below the combined cost of production, transport and a reasonable return without undermining supply. While lower-cost resources still exist in Australia, they are depleting and the new resources to which a PNGRS would apply typically have higher production costs, are more distant from demand centres, or both. This suggests that prices may not be able to sustain much below $8/GJ in Eastern Australian demand centres, whatever the settings in a PNGRS.

If a roughly $8/GJ price level, defined by marginal costs of new supply, is the lowest level sustainable with sufficiently aggressive policy, that would be both dramatically above historic averages, and a significant improvement for users from the $8-12/GJ long term export parity range expected prior to the pandemic.

Currently the benefits of moderating gas prices would be significant. Gas is a significant cost for many households in southern states, and an important input to key industries. It is also a significant determinant of electricity prices, through the role that mid-merit and peaking gas generators play in a tight electricity market.

Over time the impact of gas prices on many energy users is likely to shrink and could shrink faster depending on public policy. Many gas users have scope for increased efficiency, fuel switching or electrification. Improved heat pumps and other electrical heating systems, and increased availability of biogas and/or hydrogen, will expand the alternatives for energy users. While gas is an important source of flexibility for the electricity system, its role in bulk energy is being displaced by renewables and its influence on power prices has weakened somewhat as the market has loosened with new post-Hazelwood supply. In future the roles that gas generators play today will see competition from different sources of flexibility like pumped hydro, batteries, demand response and more.

However, whatever the ultimate success of these alternatives to current gas supply in the long term, there will be an extended period where millions of households, thousands of businesses and the electricity sector retain significant gas usage through their existing stock of appliances, equipment and facilities. If supply is secure and prices affordable over this period, the benefits would likely be substantial. In 2014 economic modelling by Deloitte Access Economics for Ai Group and a consortium of other energy user organisations examined the impacts on manufacturing and the wider economy of three broad scenarios for Eastern Australian gas prices – international price parity and dispersed efficient price levels across the East; international parity and clustered prices; and a lower price scenario where East Coast LNG never took off and prices remained based on local cost of supply.[3] Manufacturing output was projected to be 3.6% to 4.4% lower over the 2014-21 period examined in the higher price cases versus the lower cost case. Fresh modelling of a detailed PNGRS proposal would plausibly find comparable output differences.

Are there gas reservation models that have worked in other jurisdictions which could work at the national level in Australia or are there examples of unsuccessful policies Australia can learn from?

The Issues paper mentions relevant policies in Western Australia, Queensland, Victoria and the United States. We have some comments to offer on each.

Western Australia's reservation, an obligation to offer a percentage of all new supply to domestic customers, appears to have been highly successful. The policy is of long standing, originating in the State's approach to the foundational contract arrangements for the North West Shelf Project and evolving to apply more formally to subsequent projects in which the State Government was not a direct participant. As already noted, the WA reservation has clearly not been incompatible with enormous investment by the oil and gas sector. The policy is somewhat ambiguous: on its face it does not require uncommercial supply at a point in time, but it may be interpreted to ultimately require reserved volumes eventually to be supplied to domestic customers. WA-based stakeholders have suggested that the greatest benefit of the policy has been to ensure that export projects also put in place the infrastructure and processing capacity needed to allow supply to domestic customers if agreed. That has made domestic supply a constant practical possibility.

Queensland's reservation, a designation of specific acreage for domestic supply, has been relatively uncontroversial with gas suppliers and welcomed by the specific gas users who have contracted with developers of the reserved resources. However, because the reservation is acreage-specific and applies to a very small total area, it is unclear that it is having any net effect whatsoever. Reserving a small portion of a total resource leaves open the possibility that other parts of the resource, which may otherwise have been developed to serve the domestic market, are developed for export instead. Such a reservation may shuffle individual resources between uses, without producing a net increase in the gas that is available to domestic users or altering price levels.

Victoria's reservation of new conventional onshore gas resources for first offer to Australian energy

[3] Deloitte Access Economics, *Gas Market Transformations – Economic consequences for the manufacturing sector* (July 2014) https://www2.deloitte.com/content/dam/Deloitte/au/Documents/finance/deloitte-au-fas-gas-market-transformations-july-2014-240914.pdf.

users is interesting. However, it is far too early to tell what impact it may have, particularly since it is unclear how much development of Otway Basin onshore resources may actually occur.

United States policy on gas resources has often been invoked in discussions of Australian reservation ideas; while it is very distinct in important ways, the comparison does have some value. Until recently the US policy was to require approval of gas exports to countries with which the US did not have a free trade agreement; the Department of Energy had to issue approvals unless it concluded that this would not be in the public interest. In the course of the Obama Administration the growth of shale gas production turned the US from an expected LNG importer to a hot prospect for LNG exports, and the Administration received many export applications. The Obama Administration was widely thought to be slow-walking consideration and approval, based on a view that early unconstrained exports might excessively impact US gas users. However ultimately several applications were approved. More recently the Trump Administration has moved to extend default approval to all export applications, unless they relate to countries with whom trade is specifically forbidden by law.

Overall, the former US approach was a form of national interest assessment, not a reservation per se. However, it also demonstrated the compatibility of safeguards for domestic energy users with high levels of investment in the oil and gas sector. Of course the US gas context is very different context from Eastern Australia: the domestic market is vastly larger than any plausible export expansion; gas is priced based on local supply, demand and cost structures, not international oil prices or export parity; and gas is a co-product with shale oil, rather than a sole product from coal seams, making lower prices easier to sustain.

How would a prospective national gas reservation scheme interact with state and territory policies and regulations?

The interaction with state policies is complex and depends in part on the form a national reservation might take.

If the Government merely coordinated a reservation that was actually implemented by agreement with the States, and implemented through similar or mirrored legislation in each State, that would be politically complex but perhaps legally straightforward. The National Electricity Law is an example of such coordination. Of course, given the different existing approaches in WA and Queensland, and latterly Victoria, such a coordinated reservation would need either to harmonise State policies - never easy on any topic – or allow great diversity.

Alternately the Government could seek to impose a default reservation where States had not already prescribed their own, comparable to the way the Default Market Offer applies to electricity retail only in New South Wales, South Australia and South East Queensland. The lack of Commonwealth constitutional power over the underlying resource would be a challenge, though reliance on the Trade and Corporations powers (ss51(i) and (xx) of the Constitution) might suffice.

Most aggressively, the Government could seek to impose a uniform reservation extending even to States with their own existing policies, whether by agreement or not. While the Trade and Corporations powers would be useful, State powers over resources are distinct and it might be that Commonwealth rules would exist in parallel to State ones, rather than supervening them to the extent of inconsistency.

There has been speculation that a Commonwealth reservation might be applied so as not to cover or benefit States that forbade development of gas resources. This idea would be very problematic. Legally it seems incompatible with s99 of the Constitution. Politically it seems incompatible with the need to earn and maintain social license for responsible development of gas resources.

For any questions in relation to this submission, please contact Ai Group adviser Tennant Reed (tennant.reed@aigroup.com.au, 0418 337 930).

Sincerely yours,

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