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Department of Industry, Science, and Resources (DISR)
Via - <https://consult.industry.gov.au/adgsm-extension>

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Dear Minister

Re: Australian Domestic Gas Security Mechanism (ADGSM) Extension Options

The Australian Aluminium Council (the Council) represents Australia's bauxite mining, alumina refining, aluminium smelting and downstream processing industries. The aluminium industry has been operating in Australia since 1955, and over the decades has been a significant contributor to the nation's economy. It includes six bauxite mines plus several smaller mines which collectively produce over 100 Mt per annum making Australia the world's largest producer of bauxite. Australia is the world's largest exporter of alumina with six alumina refineries producing around 21 Mt per annum of alumina. Australia is the sixth largest producer of aluminium, with four aluminium smelters and additional downstream processing industries including more than 20 extrusion presses. Aluminium is Australia's top manufacturing export. The industry directly employs more than 17,000 people, including 4,000 full time equivalent contractors. It also indirectly supports around 60,000 families predominantly in regional Australia.

The Australian alumina and aluminium industries are highly dependent on gas for their operations and viability; directly using more than 166¹ PJ of gas per annum as well as indirect consumption via the electricity market. Energy typically accounts for 30-40% of the industries' cost base, and therefore it is a key determinant of their international competitiveness. The industries' gas usage can be summarised as follows:

- Gas usage by alumina refineries (WA Gas Market) ~125 PJ, which is 32 % of WA's domestic gas market;
- Gas usage by alumina refineries and aluminium smelters (East Coast Gas Market) ~40 PJ, which is 7% of the East Coast domestic gas market; and
- Indirect consumption via the National Electricity Market (NEM) the industry has four aluminium smelters, two alumina refineries and a number of extruders; and uses more than 10% of the electricity consumed in the NEM.

Australian Domestic Gas Security Mechanism

The Government has requested feedback on the potential extension of the Australian Domestic Gas Security Mechanism (ADGSM) until 1 January 2030. The Council supports this extension but notes that during the May/ June 2022 energy crisis it was apparent that the ADGSM required further reforms. During the extension of the ADGSM to 1 January 2030, the Council would support additionally:

- Facilitation of a more immediate trigger, rather than for the following year, should a shortfall in gas become apparent to the Minister; and
- Lowering of the Australian Energy Market Operator (AEMO administered price cap from \$40/GJ to \$20/GJ. This is still a substantial gas price, compared to long run gas production costs and international

¹ This gas consumption includes gas used in cogeneration for export electricity, as this activity is directly linked to the alumina refineries; and produces low emissions electricity for the National Electricity Market and South West Interconnected System (SWIS). Data provided is for 2021 calendar year.

markets and would have the beneficial impact for the electricity market of removing the current mismatch between the \$40/GJ gas price cap and the \$300/MWh administered price cap. This combined set of action should help ensure that there is sufficient supply of natural gas to meet the forecast needs of energy users within Australia, including supply to the electricity market.

The Grid Reliability Scenario (Figure 6) in the Interim National Gas Infrastructure Plan showed the modelled gas supply vs demand outcomes are very sensitive to the changes in the electricity sector, due to the use of gas firming to maintain system reliability. Recent outages of major generators and the energy crisis of May/June 2022 have confirmed this. Ensuring adequate gas supply and competitive prices for gas will be essential to ensuring electricity reliability is maintained at least cost to consumers. In addressing both price and supply in a revised ADGSM, the Government has the opportunity to also address this known risk to the electricity market.

Additional Policy Options

Additionally, the Government is seeking advice on other options to deliver the desired outcomes in the gas market. The Council offers views on a range of additional measures, for consideration.

Gas Use in Major Industry

The Council notes that the East Coast gas market is undergoing a period of substantial transformation, with future supplies uncertain and a risk of shortages. When considering the gas needs of the aluminium industry, in the East Coast gas market over the next twenty years, it is important to consider the time scale for change. While the Australian aluminium and alumina industries are developing and commercialising new technologies, the time, cost, and complexity of developing viable, large-scale alternatives to the use of gas should not be underestimated.

While the industry consumes gas in its aluminium smelters and extrusion operations, the largest use is in alumina refineries, located in both the east and west coast gas markets. The Council believes that gas will have an important and necessary bridging role in lowering carbon emissions, as it is technically and, on the right commercial terms, economically viable today. Zero emissions alternatives require further development, to become technically and economically viable for implementation. The evolving gas needs of an electricity system with higher levels of renewable generation and new technologies like hydrogen, also need to be considered. This will be particularly important in ensuring all options for industry transition, including fuel switching and electrification, are not only technically but also commercially viable. Additionally, if there was to be an increased supply of competitively priced low or zero emissions electricity, and subject to technological advances, there is the potential to materially increase the electrification of alumina refineries in both the NEM and SWIS electricity markets. This expanded electricity use, will still require substantial gas for firming.

Prospective Gas Reservation

The industry has experience operating under the Western Australian Domestic Gas Reservation Policy for almost 15 years. This policy has helped provide domestic market security to the alumina industry², including a recent agreement with a smaller energy company which was sufficient to underpin the development of a new onshore gas field³. But it also demonstrates the mutual value which can be created between the mineral processing industry and its energy suppliers, with supportive policy settings. Australia should adopt a strategic national approach to gas and its manufacturing sector, as many of its competitors have. A prospective gas reservation policy should be one part of this strategy.

²<https://www.alcoa.com/australia/en/news/releases?id=2015/04/alcoa-secures-new-gas-supply-agreement-to-power-its-alumina-refineries-in-western-australia&year=y2015> and https://files.woodside/docs/default-source/media-releases/woodside-to-supply-domestic-gas-to-worsley-alumina.pdf?sfvrsn=6706356_2.

³<https://www.alcoa.com/australia/en/news/releases?id=2020/09/alcoa-secures-continued-gas-supply-with-three-new-agreements&year=y2020> and <https://www.afr.com/companies/energy/large-alcoa-gas-deal-to-kick-start-onshore-wa-field-20200928-p55zv2>.

LNG Import Terminals

The Council is concerned that in a country with the wealth of energy resources that Australia has, manufacturers may need to use gas supplied by LNG Import Terminals, while at the same time maintaining an active LNG export industry. While LNG import terminals may be an option of last resort, they are not an efficient solution.

Gas Supply Hubs

The Council and its members are seeking an efficient, effective, and deep Australian domestic gas market – a market which is comprised of many buyers and sellers who are able to negotiate contracts where both sides can obtain a fair return and where shortages in supply lead to higher prices, which in turn bring on additional supply to satisfy this demand. While the Council believes a functioning gas supply hub (GSH), with improved liquidity, would be an important part of a more effective gas market; major industrial users are still likely to seek contract bilaterally rather than participating directly in the GSH.

Access to gas is a crucial aspect of this for the alumina and aluminium industries. To achieve this, ultimately the market needs an increased diversity of sellers, new sources of gas that meet/exceed current domestic requirements and current LNG export capacity, and removal of physical congestion, in order to deliver internationally competitive outcomes for consumers. A market with inadequate gas supply will continue to track volatile international LNG pricing (less netback) and is unlikely to achieve the Government's policy aims.

Conclusion

At a time when manufacturers are facing serious challenges, energy is one of the few advantages Australia has to offer and which Government can help to deliver. The Council seeks a national climate and energy policy framework which is transparent, stable and predictable, while maintaining the economic health of the nation including vital import and export competing industries.

Given the importance of a functioning gas market to the industry, the Council is happy to provide further information on any of the issues raised in this submission and looks forward to continuing to work with the Government on the development of gas policy.

Kind regards,



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