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Australian Aluminium Council Feedback on Gas Fired Recovery

The Australian Aluminium Council (the Council) represents Australia's bauxite mining, alumina refining, aluminium smelting and downstream processing industries. The Australian aluminium industry has been operating in Australia since 1955, and over the decades has been a significant contributor to the Australian economy. Alongside many decades of economic contribution, the industry is globally comparatively young and well maintained.

The industry includes five large (>10 Mt per annum) bauxite mines plus several smaller producers which collectively produce over 100 Mt per annum making Australia the world's largest producer of bauxite (Figure 1). The six alumina refineries produce around 20 Mt per annum of alumina and Australia is the world's largest exporter of alumina. There are four aluminium smelters; in addition to downstream processing including more than 20 extrusion presses and Australia is the sixth largest producer of aluminium. Aluminium is Australia's highest earning manufacturing export. The industry directly employs more than 17,000 people, including 4,000 full time equivalent contractors. The industry also indirectly supports around 60,000 families 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 33 % 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.

The Council welcomes the opportunity to provide feedback to the December 2020 "Gas Fired Recovery Plan" Consultation Note. As each operation has unique energy arrangements, the Council will limit its feedback in this consultation to a high level. In the almost a decade since Australian gas prices have increased, despite numerous inquiries and policy agendas, little has changed on the ground. The Australian domestic gas market is currently neither efficient nor deep. The Council recognises that the Gas Fired Recovery Plan, is a step to address the current market challenges, and to go further than previous inquiries, developing practical solutions.



Figure 1. Bauxite mining, alumina refining and aluminium smelting operations

In the context of this consultation, it is important to recognise that Australia’s manufacturing sector is facing immediate challenges. During the first half of 2020, commodity prices collapsed because of COVID-19. While prices have, in part, recovered the longer-term future of industry will depend on the rate of recovery of the global manufacturing sector and the impact this has on international demand. Equally, the COVID-19 pandemic has underscored the importance of domestic manufacturing, supporting a productive and resilient economy. The COVID crisis has demonstrated the advantages of not only the ability to value add within an almost exclusively domestic supply chain but also the importance of local industry which provides the underpinning market for our dependent contracting and manufacturing sector.

A report by the CM Groupⁱⁱ in May 2020, found even accounting for the COVID-19 pandemic, the 30-year global outlook for aluminium demand is strongly positive with a forecast compound annual growth rate of 3.8% over the 30-year period to 2050, resulting in annual demand of approximately 335 million tonnes per year by 2050 (across both primary and secondary aluminium consumption). As the world’s largest producer of bauxite and largest exporter of alumina, and with a wealth of energy resources, Australia should be well placed to capitalise on these competitive advantages, and these advantages must be considered when setting the focus for Australia’s gas policy reform.

The Council believes that gas will have an important and necessary bridging role in lowering carbon emissions, as it is technically and economically viable today; while zero emissions alternatives are more fully developed in the future. Australia’s alumina refineries already produce some of the lowest emissions alumina globally, and are well below the global industry average, at 0.7 t CO₂-e / t aluminaⁱⁱⁱ compared to

1.2 t CO₂-e / t alumina globally^{iv}. The industry is currently developing new technologies and articulating a range of costed technology pathways, which will inform a future transition. However, the time, cost and complexity of developing viable, large-scale alternatives to the use of gas should not be underestimated.

The National Gas Infrastructure Plan (NGIP) will identify priority pipelines and critical infrastructure for Australia's east coast gas market, with an intent to signal to the market priority infrastructure investments. By doing so, it is intended that the NGIP will help ensure adequate gas supply for customers connected to the east coast gas market at affordable, globally competitive prices.

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, for example, shortages in supply lead to higher prices, which in turn bring on additional supply to satisfy this demand. The intent of the NGIP is aligned with this.

The NGIP should in its development, address the constraints introduced as a result of the construction of the three LNG export facilities in Gladstone as well as moratoria on gas exploration in some states, which have fundamentally changed the gas market.

An ambition of the NGIP is the Wallumbilla Hub aims act as a truly effective price benchmark, to improve gas consumers' ability to purchase gas at a fair price and improve investment across the gas market. While the Council supports this ambition, we remain concerned about the achievability to deliver an open, transparent and more competitive gas trading system through the Hub; given the constraint of transport arrangements through the Hub and the very low baseline of trades through the Hub, compared to those which are carried out bi-laterally and more particularly, compared to the volume through LNG plants.

The Council seeks a national energy policy framework which is transparent, stable and predictable, while maintaining the economic health of the nation including vital import and export competing industries. Access to gas is a crucial aspect of this for the alumina and aluminium industries. While the industry welcomes market mechanisms, 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.

A key outcome from gas reforms should be predictability so industry can confidently invest and plan for the future. "Investibility" is not solely a concern for the supply side of the market. At a time when manufacturers are facing serious challenges, energy is one of the few potential advantages Australia has to offer and which Government can help to deliver. Australia should adopt a strategic national approach to gas and its manufacturing sector, as many of its competitors have.

Our 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 industry^v, including a recent agreement with a smaller energy company which was sufficient to underpin the development of a new onshore gas field^{vi}. But it also demonstrates the mutual value which can be created between the mineral processing industry and its energy suppliers, with supportive policy settings. A prospective gas reservation policy that builds on the Western Australian experience, would, as part of a broader strategy, enable an increase in domestically available volume from new sources and support delinking domestic prices from the export market.

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 this policy.

Kind regards,



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ⁱ 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. Data provided is for 2019 calendar year.

ⁱⁱ An Initial Assessment of the Impact of the COVID-19 Pandemic on Global Aluminium Demand, CM Group, May 2020. http://www.world-aluminium.org/media/filer_public/2020/05/28/initial_assessment_of_the_covid-19_on_global_al_demand.pdf

ⁱⁱⁱ Australian Aluminium Council, 2019 <https://aluminium.org.au/sustainability/>

^{iv} Alumina Limited 2020 Full Year Results Presentation, Slide 6, <https://www.aluminalimited.com/results/>

^v <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.

^{vi} <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>.