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Department of Climate Change, Energy, the Environment and Water
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Dear Minister

Re: Incorporating an emissions reduction objective into the National Energy Objectives (NEO)

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. Today's aluminium industry contributes around \$16.9B a year to the economy in export value. More than \$15 B of this comes from the alumina and aluminium industries, as value adding mineral processing sectors. The industry includes six large 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 seventh largest producer of aluminium, with four aluminium smelters and additional downstream processing industries including more than 20 extrusion presses. Aluminium is one of the commodities most widely used in the global transition to a clean energy future. It is also recognised for its importance to both economic development and low emissions transition. 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 Council welcomes the opportunity to provide comment and feedback on the proposed legislative package to give effect to an emissions reduction objective in the National Electricity Law (NEL), the National Gas Law (NGL) and the National Energy Retail Law (NERL) as outlined in the consultation Paper Incorporating an emissions reduction objective into the national energy objectives" (the Paper).

Aluminium Industry and the Energy Markets

Australia's energy sector including the National Electricity Market (NEM) and the South West Interconnected System (SWIS) are going through a once in a century transformation, as Australia moves towards net zero emissions by 2050 and that this transition will need to be carefully managed, to ensure that all consumers are provided with competitively priced, reliable, low emissions energy. Decarbonisation of Australia's electricity supply is the single biggest opportunity to decarbonise the vertically integrated domestic aluminium industry in the coming decade. Providing electricity is supplied consistently, with firm power, and at internationally competitive prices, aluminium smelting can be run on renewable electricity. The carbon intensity of the Australian grid is declining rapidly with this increased penetration of variable renewables. The owners of Australia's four smelters have signalled their desire to recontract renewable electricity at the end of their current terms (2025-2029).

Energy typically accounts for around 30-40% of the industry's cost base, and therefore it is a key determinant of their international competitiveness. Within the NEM the Australian aluminium industry has four aluminium smelters and two alumina refineries which use more than 10% of the electricity consumed in the NEM. The alumina industry also consumes around 220 PJ of energy, currently as gas and coal in the refineries.

This may convert to electricity requirements of 3-5GW¹ firm in the NEM and the SWIS, depending on the technology applied in digestion and calcination. For industry, it is the delivered cost (including transmission) of energy which drives international competitiveness. The delivered energy supply requirements of the industry, can be summarised as follows:

- least cost, and at an internationally competitive level, as a minimum;
- consistent uninterrupted energy supply;
- an ability to secure energy supply under long-term contractual arrangements; and
- an ability to be compensated adequately for system services which smelters and refineries provide for the network and its stakeholders.

These outcomes need to be delivered within the framework of Australia's Paris Agreement emission targets. The Council recognises the important role of gas in supporting firming in the electricity market. The Grid Reliability Scenario (Figure 6) in the Interim National Gas Infrastructure Plan² 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 is essential to ensuring electricity reliability is maintained at least cost to consumers.

Feedback on Incorporating Emissions Reduction Objectives into the NEO

The Council recognises the agreement by Energy Ministers to fast track the introduction of an emissions reduction objective into the NEO. The Council and its Members are seeking 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 and recognise that the NEO is an important part of this framework.

In consideration of its feedback to the Paper (Attachment 1), the Council has also considered how the proposed changes align with its Electricity System Design Principles (Attachment 2). As each operation has unique energy arrangements, the Council will limit its comments on the Paper to a high level. The Council also notes that the NEO is often interpreted in favour of the long term, which can lead to short term disadvantage. For consumers, there is a higher degree of certainty around short term costs and a lower degree of certainty of long-term benefits. With regard to feedback on the detailed consultation questions, the Council also supports the submission of the Energy Users Association of Australia.

Conclusion

At a time when Australia's manufacturers and households are facing serious challenges, energy is one of the few advantages Australia has to offer and which Government can help to deliver. The Government must continue to focus on the efficient delivery of energy and climate policy to consumers as part of this transition. Given the importance of energy markets 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 both energy and climate policy.

Kind regards,



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¹ The potential renewable capacity required to meet this demand is likely 3 to 5 times this amount.
<https://arena.gov.au/assets/2022/11/roadmap-for-decarbonising-australian-alumina-refining-report.pdf>

² <https://www.energy.gov.au/news-media/news/national-gas-infrastructure-plan-interim-report>

Attachment 1

Stakeholder feedback to selected questions in template

Chapter 3: Approach to incorporating an emissions reduction objective

Question 1: Do you consider incorporating the emissions reduction objective into the existing 'economic-efficiency' framework is an effective way of integrating the concept into the decision making of energy market bodies?

Question 2: Is the current level of discretion afforded through an 'economic efficiency' framework appropriate for balancing an emissions reduction component against existing components of the energy objectives?

Question 3: Do you consider that, for certain instances/processes, market bodies should develop/update guidance material to assist market participants in understanding how market bodies will interpret the proposed revised national energy objectives?

- a) What are these instances/processes and what sort of content would you want to be included in this guidance?

The NEO as stated in the NEL is: "to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- price, quality, safety and reliability and security of supply of electricity
- the reliability, safety and security of the national electricity system."

The National Gas Objective (NGO) as stated in the National Gas Law (NGL) is: "to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas."

The Council's experience with the NEO and NGO is that they have often been interpreted by regulators as favouring an investment framework for the supply side, rather than an efficient affordable outcome for consumers. Interests of customers should not be subservient to the interests of others.

So, while in theory, the addition of incorporating emissions reductions should not alter the balance away from consumers, the Council does believe that there is a risk that this will create a further signal for an investment framework which does not focus on the cost of the transition to consumers. Regulators must continue to focus on who is paying for the transition and as well as the merits it will bring. Updated guidance on this should be considered.

Section 3.3 Reference to Australia's greenhouse gas emissions reduction targets

Question 4: Does this approach give an appropriate level of clarity as well as discretion to market bodies to consider relevant targets in their decision making? If not, detail your reasons and suggested solutions.

Question 5: Does the inclusion of 'public commitments' including 'publicly as a matter of policy,' as well as legislated targets, provide sufficient certainty for effective consideration of an emissions objective by market bodies?

Australia's emissions targets provide sufficient guidance and certainty on emissions objectives for the energy market.

Section 3.4 Amendments to acknowledge interactions between electricity and gas markets and enable management of transition impact

Question 6: Do you agree that the proposed change to 'consumers of energy' is necessary and appropriate to recognise the interconnections between the two energy markets and to enable future decisions to consider the implications for the energy system as a whole?

Question 7: What impacts (positive and/or negative) would the proposed change have on your organisation or your stakeholders/customers?

- a) What are these instances/processes and what sort of content would you want to be included in this guidance?

- b) Do you foresee any unintended adverse consequences coming from such a change, especially for market participants or consumers?

The Council and its members already focus on the consumption of and delivered cost of energy, including gas and electricity as energy typically accounts for around 30-40% of the industry's cost base and is a key determinant of their international competitiveness. The Council recognises the important role of gas in supporting firming in the electricity market. The Grid Reliability Scenario (Figure 6) in the Interim National Gas Infrastructure Plan² 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 is essential to ensuring electricity reliability is maintained at least cost to consumers.

The Council would therefore support this change.

Question 8: Do you consider the additional change to 'supply of energy' is necessary given the reasons above?

Question 9: Do you agree that the market bodies, when making a decision under the NEL/NER should be empowered to consider the implications for price, reliability, security etc. in the gas market and vice versa? If not, what are other ways of managing the potential implications of the transition on all energy consumers?

Question 10: Do you foresee any unintended adverse consequences coming from such a change, especially for market participants or consumers?

As outlined in response to Q6 & 7, the Council supports the consideration of all forms of interdependent energy, including a focus on the price to consumers in decision making.

Section 3.6 Commencement and transitional arrangements

Question 15: Do you agree with the proposed Proclamation date being six months after passage through the South Australian Parliament?

The Council does not have an opinion on this.

Attachment 2

Australian Aluminium Council - Electricity System Design Principles

Engender Australian advantage

Support a future where Australia's world class energy resources are translated into internationally competitive, low emissions, reliable energy to ensure industrial production, emissions and jobs are not exported to other countries. As Australia transitions away from a thermal fleet and towards increasingly variable and distributed generation, industrial load provides a physical and commercial "ballast" to the grid. The value of this load as both ballast and interruptible supply needs to be recognised in the development of competitive frameworks.

Avoid shocks to all market participants, including consumers

The approach to transition should be consistent with a rapid evolution, rather than revolution, in electricity reform processes. Transition should seek to avoid shocks and discontinuities where possible and rule makers should work to ensure the preservation of existing commercial contracts (grandfathering) to prevent disadvantage to all market participants who are willing to invest and contract for the long term.

Deliver improvements throughout the transition, not just in the long term

The short term versus long term balance in interpreting the National Electricity Objective is skewed in favour of the long term, which can lead to short term disadvantage. There needs to be a more risk-based approach to changes which reflects the certainty around short term costs and the uncertainty of long-term benefits. The staging of the transition must be recognised, as well as the final outcome, looking for benefits along the pathway. In considering the most beneficial end point, the benefits and costs of the transition, should also be considered.

Recognise the starting point and state-by-state variation in any design

The current energy-only market has not been able to deliver perfect competition, some regions are more balanced than others and many regions have relied on major Government investment to provide supply and manage the transition. Future market reforms need to recognise that the playing field within the market does not start from a basis of levelized competition, regulations will be required which encourage competition in the services which are needed to balance the current imperfections and in jurisdictions where the current market competition levels are unable to drive efficient outcomes. In designing new structures that recognise the reality of the starting point an important principle of design is that the cost of regulation should not exceed the private benefits.

User participation should be voluntary and recognise the complexity of participation

Even for large, sophisticated industrial users, the procurement of electricity is primarily seen as an input into production; rather than being the core process for the business itself. As the emphasis in market design switches to more demand side participation, assumptions need to be continually tested regarding the complexity of requirements to participate. It is important to recognise that demand site participation will impact on both operational processes and safety; and has the potential to distract from the core business processes of end users. It requires complex technical considerations within the businesses of industrial users that interact with the market. Outsourcing participation to an intermediary does not remove the need for the business to manage its physical interface with the market. Accordingly, services that industrial users could provide – such as demand management, stability, ancillary services, and emergency response – should be provided on a voluntary basis and need to be adequately compensated for.