

Safeguard Mechanism - Summary Position

Australian Aluminium Council, October 2022

The focus of policy design for Safeguard Mechanism should be on establishing a framework to maintain industry, jobs and competitiveness while also decarbonising, through the period to 2030 and beyond to achieve net zero by 2050. The Safeguard Mechanism is starting from an existing scheme and a pragmatic approach to developing the final design, to enable industry to capitalise on Australia's national advantage allowing for economic growth, supporting competitiveness, and applying costs only at the margin. The success of this policy will not be measured in 2030 alone, but in the transformation of Australia's industry in the biggest clean industrial and economic revolution this country has seen.

Key Safeguard Design Principles

1. *Timing and Process*

The Paper outlines the process to achieve a 1 July 2023 start date for the Safeguard Mechanism reforms and two interim phases, Phase 1 (2 years) and Phase 2 (5 years until FY 2030). However, these timescales do not match those of transformational abatement. For major industry, a five- and ten-year planning horizon is not unusual, so the policy needs to look to at least 2033 and then beyond.

2. *Share of Abatement Task*

The biggest single opportunity to decarbonise the vertically integrated domestic aluminium industry is via decarbonisation of the electricity supply. This needs to be combined with technologies availability for the facilities to enable transformation. However, in some cases it is the supply and availability of competitively priced zero emissions electricity which may be the rate limiting step. Therefore, the electricity sector should deliver more abatement pre 2030, with Safeguard abatement to increase later with electrification enabled.

3. *Setting Baselines to Achieve an Equitable Distribution of Costs and Benefits*

Production-adjusted baselines will allow for economic growth, support competitiveness, and apply costs at the margin. Minor annual production variations are also a common source of emissions variation, and intensity baselines remove this aspect of annual variability.

The Council proposes a Hybrid Option which is intended to achieve the policy goals as outlined in the Paper, but also to overcome the shortfalls of Option 1 and Option 2. The Council's proposed Hybrid Option would be to retain existing production-adjusted baselines, with either industry average or site-specific emissions intensity, for compliance purposes, but to remove aggregate headroom, have a separate baseline for crediting.

4. *Crediting and Trading, Domestic Offsets and International Units*

Subject to how baselines are set (Option 1 / Option 2 / Hybrid) there should not be any issues associated with automatically tradeable credits for Safeguard facilities. Additionally, a price cap, shortfall charge or Government operator as purchaser and retailer of last resort for credits would be useful during the introductory phases of the scheme while the market is being established and becoming more liquid. Both banking and borrowing and inter-temporal flexibility should be available. ACCUs should be able to be generated under the ERF for emissions not covered under the Safeguard (e.g., land management, waste and Scope 2 electricity). International units, subject to future rules of international trading and providing they meet integrity principles, should be able to be used.

5. *Tailored Treatment for Emissions-Intensive, Trade-Exposed (EITE) Businesses*

Australian businesses should not be competitively disadvantaged relative to international competitors, and production, capital investments, jobs and emissions should not 'leak' overseas. Increasingly, competitiveness will depend on being a low emissions producer and having a pathway to net zero. The preferred treatment to enable EITE facilities to maintain competitiveness and minimise the risk of carbon leakage is a site-specific differentiated baseline decline, which recognises the availability of technologies and zero emissions energy, combined with access to funding recognising the substantial cost of transformative abatement. A differentiated decline will encourage decarbonisation projects.



6. Taking account of Available and Emerging Technologies

Differential decline rates for EITE industries, potentially combined with longer periods of banking and borrowing from future baselines beyond 5 years (or extended MYMP), would best address the issue of available technologies.

7. Indicative Baseline Decline Rates

Industry- or facility-specific decline rates are an appropriate mechanism to maintain the competitiveness of EITE facilities, particularly those which will have substantial step change processes.

Aluminium Industry Context

In 2021, Scope 1 and 2 emissions from Australia's integrated aluminium industry (bauxite, alumina, aluminium) were about 34 Mt CO₂-e, which was 7% of Australia's national emissions. In 2021 the industry's indirect emissions associated with the consumption of grid purchased electricity are around 17.6 Mt CO₂-e, of which 95% is from the production of primary aluminium. However, technologies which electrify the digestion process in alumina refineries could offset an additional 11 Mt CO₂-e of the 13.7 Mt alumina Scope 1 emissions. While the industry is a significant emitter and energy consumer, it has pathways to decarbonise across bauxite, alumina and aluminium facilities. Decarbonisation of Australia's electricity supply is the single biggest opportunity to decarbonise the vertically integrated domestic aluminium industry. The industry is investing in research both in Australia and through global partnerships.

Australia's alumina industry already has some of the lowest emissions in the world, with an average Scope 1 and 2 emissions intensity for alumina of 0.7 t CO₂-e/t compared to the global industry average of 1.2 t CO₂-e/t. Alumina refineries will require technology changes to meet zero-emissions goals; either in the form of electrification or adaptation to use hydrogen for process heating. Development of this technology and its application will be stepwise as new technologies to reduce overall emissions (Scope 1 plus Scope 2) become viable. However, this relies on not only the development of commercial and technological solutions for electrification of alumina refineries but also the development of sufficient competitively priced low emissions generation, storage and transmission capacity at scale to match. It is hoped that some technologies for refinery digestion may be able to be deployed prior to 2030, however, access to the required infrastructure outside the facility could be the rate-limiting step in the electrification process. The investment required to implement this transformational abatement will be substantial.

Providing electricity is supplied consistently, with firm power, and at internationally competitive prices, aluminium smelting can be run on renewable electricity. For smelters, more than 95% of Scope 1 emissions could be eliminated with conversion to inert anodes. This technology is currently under development and will be more easily assessed in 5 years, however, global deployment of this technology is not anticipated before 2030. Again, the investment required to implement this transformational abatement will be substantial.

About the Council:

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 five large (>10 Mt per annum) 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 20 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 Australia's highest earning 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.

