

Tuesday, 12th December, 2023
 Department of Climate Change, Energy the Environment and Water
 Carbon Leakage Review team
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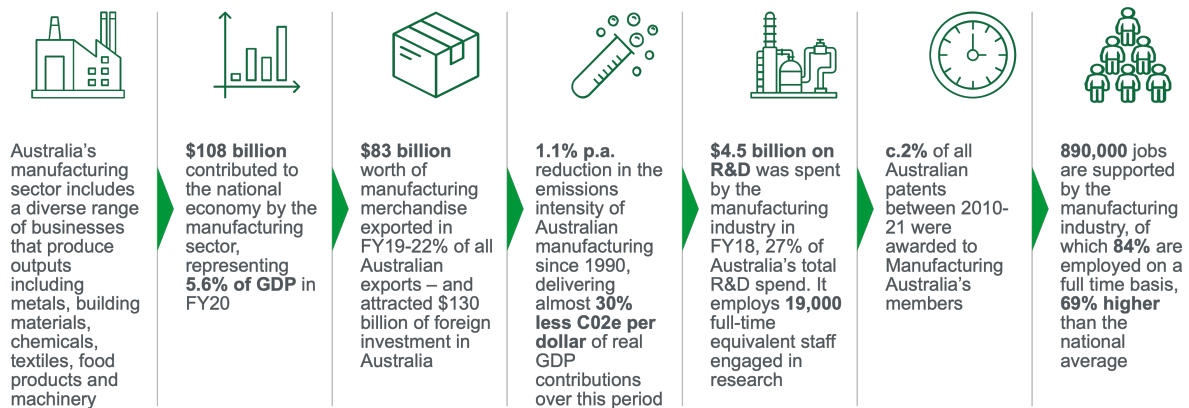
Carbon Leakage Review: Consultation Paper (November 2023)
Manufacturing Australia submission

Thank-you for the opportunity to comment on the above discussion paper.

Manufacturing Australia (MA) is led by the CEOs of some of Australia’s largest manufacturing companies: Alumina, BlueScope, Brickworks, Capral, Cement Australia, CSR, DuluxGroup, Incitec Pivot, Orora, Rheem, Sims Limited and Tomago Aluminium. These companies are key to Australia’s sovereign manufacturing capabilities.

MA member companies provide direct and indirect employment to more than 100,000 Australians, operate more than 500 manufacturing plants or smaller facilities around Australia and support more than 25,000 downstream suppliers. In addition, these companies have direct operations in more than 30 countries globally, and export to more than 50. They are amongst Australia’s most innovation-intensive businesses, having spent more than \$2bn on R&D over the past decade, and with more than 50 research partnerships in place with Australian universities and the CSIRO.

The exhibit below summarises the broad benefits afforded to Australia from domestic manufacturing capabilities.



Source: *Low Emissions Manufacturing: Australia's Opportunities*. Manufacturing Australia/L.E.K Consulting. March 2022.
<https://www.lek.com/insights/sr/low-emissions-manufacturing-australias-opportunities>

Relevant to this consultation process, MA research, undertaken in 2022 examined Australia’s opportunities to create and retain high-quality jobs and grow its manufacturing sector through a carefully managed transition to low emissions manufacturing. Key findings included:

- Long term emissions reduction pathways for Australian manufacturing industries include direct electrification using clean energy; green hydrogen for use as a process feedstock; green hydrogen for use in process heating; and carbon capture, usage and storage. These pathways are the subject of considerable R&D by MA members.
- In the medium term, reductions in emissions will also be achieved through substitution of emissions-intensive inputs, increased recycling and re-use of materials, process changes and efficiency improvements to existing assets.
- Maintaining a level playing field with imports, and preventing “carbon leakage” throughout this transition will be essential to underpin the business case for investment in low emissions technologies.

Several MA members are making separate submissions to this consultation, either in their own right or via industry-specific associations, with specific recommendations and data drawn from their industries. This submission does not seek to replicate those comments, rather it outlines the key principles that are common across the Manufacturing Australia membership, and which we recommend be taken into consideration as part of the Carbon Leakage Review.

Manufacturing Australia's carbon leakage position:

Manufacturing Australia supports the Federal Government's efforts to identify and minimise carbon leakage.

For many of Australia's largest and most strategically significant manufacturers, carbon leakage presents both a risk to the competitiveness of existing operations, and a disincentive to future investments in low emissions technologies and production processes.

Acknowledging and remedying differentials between Australia's emissions reduction policies and those of our main import competitors is necessary to support the competitiveness of Australian manufacturing as it adopts lower emissions production technologies over the coming decades.

Policy measures should prioritise retention and growth of domestic manufacturing by ensuring a level playing field with imports through this transition. A key policy principle should be to support transition to low emissions manufacturing at least cost, including limiting the administrative burden on all parties and avoiding duplication or conflict with other national or State-based policies.

Manufacturing firms with liabilities under the Safeguard Mechanism should not be placed at a competitive disadvantage with imports as a result. Without a level playing field, Australia risks losing out on investments in low emissions manufacturing technologies, and consequently losing the benefits that a vibrant manufacturing sector provides to the nation.

Manufacturing Australia supports the description of carbon leakage outlined in the consultation paper. MA regards both forms of leakage described in the paper, namely the "trade channel" and "investment channel" leakage, as current and future risks to Australian manufacturing.

Carbon Leakage Review: Manufacturing Australia comments

MA makes the following comments on the Carbon Leakage Review Discussion Paper, for consideration:

1. Safeguard Mechanism impacts:

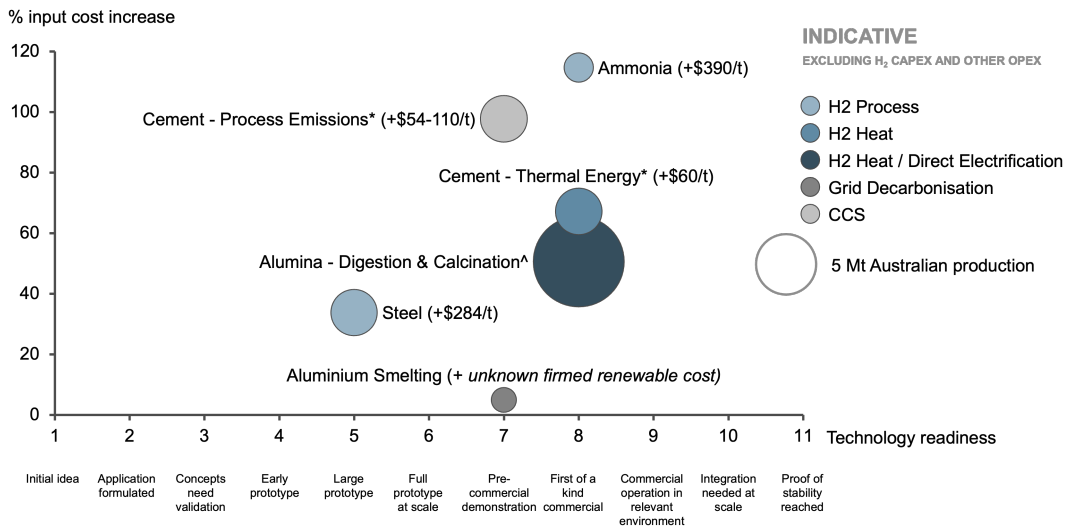
Manufacturing companies exposed to the Safeguard Mechanism face compounding, linear, liabilities that are not borne by import competitors. This creates two sources of competitive disadvantage:

- "Trade channel" risk is occurring where commercially viable abatement technologies do not yet exist or the necessary enablers of those technologies (eg. competitively priced energy, essential infrastructure, end markets etc) are not yet in place. In these instances, domestic manufacturers are exposed immediately to compounding offsets costs that are not borne by competitors, placing them at increasing competitive disadvantage.
- "Investment channel" risk is occurring where technically viable abatement technologies exist in some manufacturing industries, but these materially increase the cost of end products. Capital investments required to commercialise higher cost, lower emissions, manufacturing technologies are unlikely to be made if a manufacturer continues to be exposed to lower cost, higher emissions, import competition.

Importantly, the modified Trade Exposed Baseline Adjusted category in the SGM recognises this impact and applies a reduced rate of baseline decline to trade exposed, hard to abate, value added manufacturing industries. This is welcomed by MA and should be retained as a core design feature of the Safeguard Mechanism, regardless of any other measures that are introduced to address carbon leakage.

The exhibit below illustrates the technology readiness and input cost increase of the most promising emission reduction pathways for some "hard to abate" manufacturing processes. This clearly demonstrates the need to overcome both technical and commercial barriers to abatement pathways before they become competitive. Given that, leveling the playing field via other policy measures is necessary to underpin investment in these technologies.

Key emission reduction pathways - cost impact and technology readiness (\$70/MWh delivered electricity)



Source: *Low Emissions Manufacturing: Australia's Opportunities*. Manufacturing Australia/L.E.K Consulting. March 2022.

2. Product and Sector Coverage:

Manufacturing Australia supports using the Safeguard Mechanism definitions of trade exposure to assess the risks and impacts of carbon leakage.

Manufacturing industries that are particularly exposed to carbon leakage risk include steel manufacturing; cement and cement-based products, clinker and lime manufacturing; alumina manufacturing; aluminium smelting; aluminium extrusions; ammonia manufacturing; bricks and masonry products; plasterboard; fibre packaging; insulation and, glass container manufacturing.

Each of these manufacturing industries is reliant on technology breakthroughs or substantial advancements to be able to commercialise technologies to abate emissions. In most cases, these breakthrough technologies are not reasonably expected to be commercially viable within the next decade. In other cases, the technologies cannot be deployed until other inputs or infrastructure, such as sufficient firming renewable electricity to support electrification, cost competitive hydrogen production, or carbon capture, usage and storage infrastructure, are in place.

Any policies to prevent carbon leakage should consider the potential for future changes to the Safeguard Mechanism, such as changes to the threshold or application of SGM rules, to impact other facilities and sectors not currently liable under the SGM. Policies should be sufficiently rules-based and transparent to enable such potential impacts to be reasonably predicted. Measures should seek to encourage investment in low emissions manufacturing technologies, not act as a deterrent for reasons of costs, complexity or unpredictability.

3. Review should consider "domestic leakage":

The carbon leakage review should consider and seek to remedy the impact of "domestic leakage", whereby differential application of the safeguard mechanism to competing facilities within Australia creates an uneven playing field.

In instances where the safeguard mechanism is applied to some facilities within a domestic industry, but not to others (most commonly due to facilities falling above or below the SGM threshold) this creates a risk of leakage from one facility to another despite being otherwise comparable manufacturers.

Remedy for this unequal treatment should be considered by this review and incorporated into the SGM rules and any corresponding carbon leakage measures. A level playing field internationally as well as domestically is required.

4. Carbon Border Adjustment Mechanism:

MA supports efforts to carefully design a CBAM for trade-exposed manufacturing industries that have liabilities under the Safeguard Mechanism.

Close and careful consultation during the course of this review with the specific industries to which a CBAM would apply is essential. Such consultation should seek to provide:

- a granular and “real world” understanding of how a CBAM would impact the current operations and future investments in Australian manufacturing.
- Insights into the availability and reliability of import data to support an effective CBAM.
- Industry guidance on developing rules for product coverage that are transparent and replicable.
- Learnings from the European CBAM to identify elements that should/shouldn’t be replicated in Australia.
- Advice on industry preference for CBAM vs other carbon leakage measures, noting that this is likely to vary between specific industries.

This will require facility-by facility consultation to understand investment outlooks and risks for impacted industries.

5. Other policy options:

Policy options to address carbon leakage should be viewed in the context of a broader package of measures to support investment in low emissions manufacturing by Australian industry, as per the table below. The objective of these policies should be to maximise the retention and growth of domestic manufacturing capabilities and support these industries through a carefully managed transition to lower emissions technologies.

Losing investment in otherwise competitive manufacturing industries as a result of domestic policy settings perversely favouring imports is not in the national interest. MA recommends the following policy options be considered as part of the carbon leakage review:

- Stronger measures and expanded remit for Australia’s Anti-Dumping Commission to identify and remedy unfair trade that emerges from differential carbon policies between countries.
- Continued investment in firmed, low emissions electricity that can be delivered to commercial and industrial customers at globally competitive prices. This is a fundamental enabler of many low emissions manufacturing pathways.
- Expansion of direct funding for hard to abate industries to enable them to scale up and commercialise emerging low emissions technologies.
- Consistent national standards and accreditation for low emissions products.

Policy levers for each element enabling Australia’s opportunities from low emissions manufacturing

Element	Issues to be addressed	Potential policy levers
Low emissions technology cost competitiveness	<ul style="list-style-type: none"> • Technological development • Increased input costs • Infrastructure investment (energy and CCS) 	<ul style="list-style-type: none"> • R&D support • Subsidy • Infrastructure planning • Infrastructure provision
Low emissions product demand and pricing	<ul style="list-style-type: none"> • High implicit abatement costs relative to carbon prices • Lack of green premiums 	<ul style="list-style-type: none"> • Standards • Information disclosure • Carbon pricing • Mandates
Australian competitiveness	<ul style="list-style-type: none"> • Delivery of emissions reduction • Policy differentials • Trade exposure and emissions leakage 	<ul style="list-style-type: none"> • Emissions intensive, trade exposed (EITE) incentives and policy • Manufacturing industry policy • Long-term emissions policy

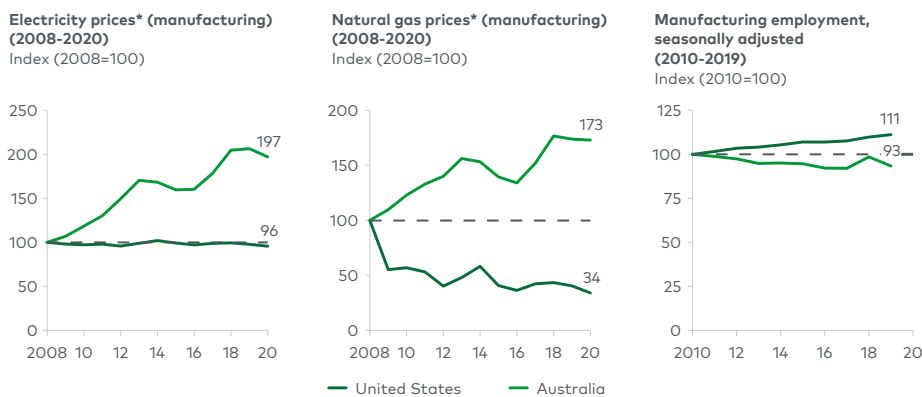
6. Energy cost disadvantage:

The carbon leakage review should take into account Australia’s (particularly Eastern Australia’s) stark competitive disadvantage of high cost and volatile energy prices compared with competing jurisdictions.

Notwithstanding reductions in the costs of unfirmed renewable electricity generation, on a delivered basis energy costs to manufacturing customers have increased substantially over the past decade, hindering the competitiveness of Australia industry.

As shown in the exhibit below, Australian manufacturers in 2020 paid an estimated 73% more for gas and 97% more for electricity than they did in 2008. In contrast, manufacturers in the USA paid, on average, 66% less for natural gas than they did in 2008, while delivered electricity prices also declined. In response, total employment in US manufacturing grew by 11% while employment in Australian manufacturing declined.

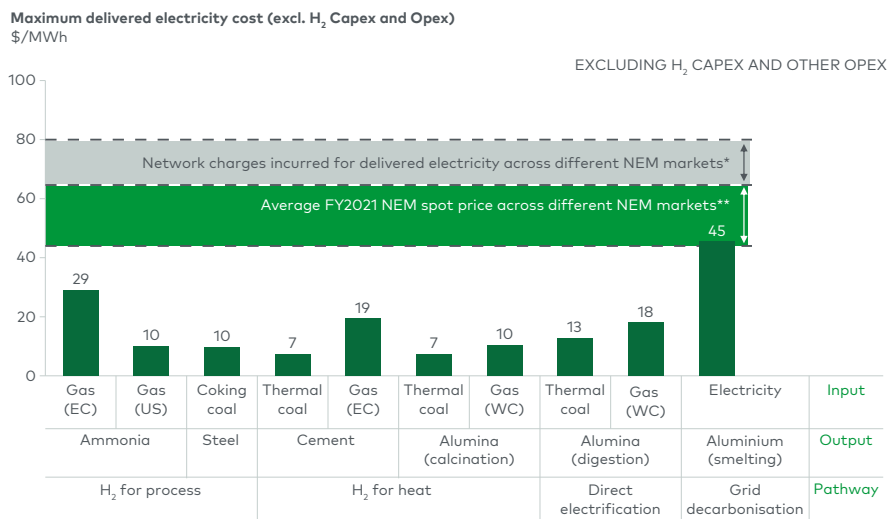
Electricity and natural gas price comparison and manufacturing employment between Australia and the United States* (2008-2020)



*Indexed real electricity and natural gas average annual price. Values differ from United States Studies Centre analysis (2018) due to different index reference base.
 Source: Australian Bureau of Statistics, 6427.0: Producer Price Indexes, Input to the manufacturing industries; US Energy Information Administration, Natural gas and electricity industrial prices; US Bureau of Labor Statistics, All Employees, Manufacturing [MANEMP], Current Employment Statistics (Establishment Survey); Australian Bureau of Statistics, Labour Force, 6291.0.55.003: Detailed, Quarterly Employed persons by industry division of main job (ANZSIC)

Further, the exhibit below demonstrates that average prices in the National Electricity Market remain prohibitively high to underpin natural take-up of the key decarbonisation pathways for hard to abate manufacturing processes.

Required delivered electricity prices for input cost parity against higher emissions inputs (excluding H₂ CAPEX and OPEX)*



7. Product Standards:

Government policy and procurement guidelines can play a supportive role in stimulating demand for Australian manufactured, low emissions products. MA supports developing consistent national standards and accreditation for low emissions, Australian manufactured, goods where these standards are developed in partnership with industry. Consultation with domestic industry is essential to avoid the perverse outcome of taxpayer funds incentivising imported products at the expense of locally manufactured products.

There is currently weak evidence for the existence of ‘green premiums’ that reflect the difference in costs between emissions-intensive and low-emissions products. Procurement support from governments can help to develop these premiums, however it should be noted that in most sectors government spend is a relatively small share of total customer base, meaning such policies should be seen as supportive measures rather than core policies.

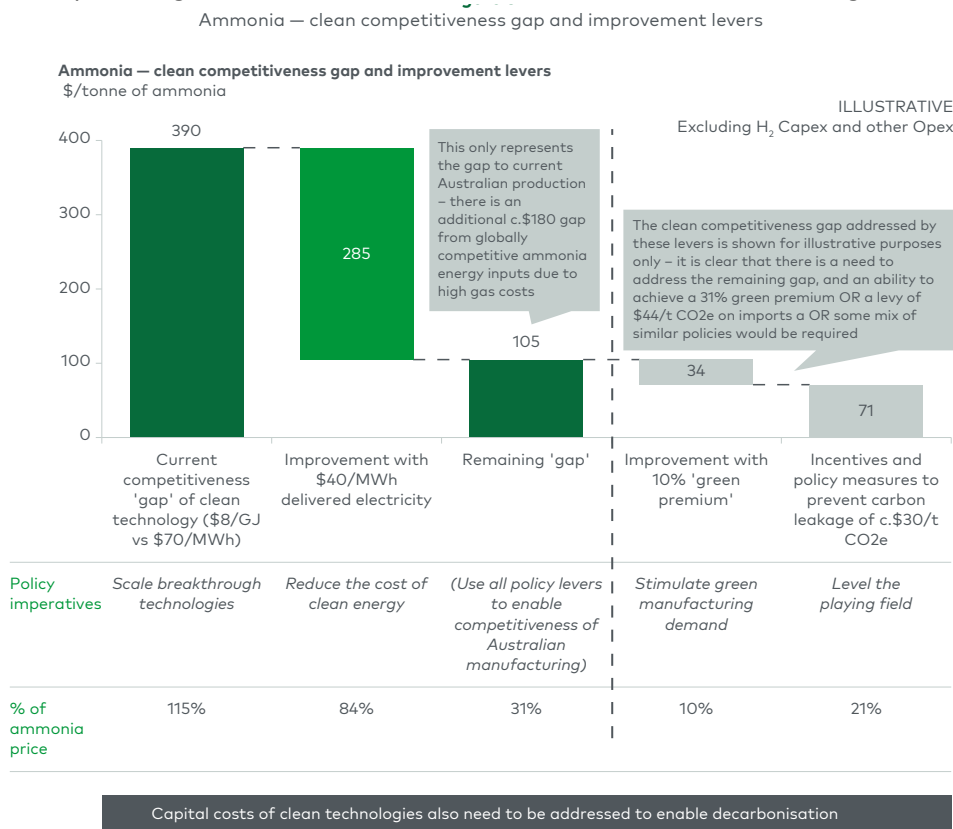
8. Analytical approach:

MA recommends an analytical approach that works in partnership with incumbent domestic industries to develop a comprehensive and granular understanding of the technical and commercial barriers to abatement and what role carbon leakage policy can play alongside other policy support.

This bottom-up approach should prioritise modelling the risks to current operations and future investment by incumbent, Australian manufacturing firms and make recommendations about how to prioritise policy support.

By way of illustrative example, consider the below, which examines ammonia production.

This example demonstrates that a mix of policies is required to realise investment in low emissions ammonia. 75% of today’s clean technology ‘competitiveness gap’ versus current Australian production would be addressed with \$40/MWh delivered electricity. However, while this is the place to start in terms of building competitiveness, a residual gap remains, providing a role for standards, direct incentives and carbon leakage measures.



Note: Excludes H₂ CAPEX and other OPEX and any enabling capital investment for manufacturers
 Analysis as of July 2021
 Source: L.E.K. Industry Net Zero model

9. Direct investment to mitigate carbon leakage:

Government funding is most effective when it is targeted at the following areas:

- **Scale the breakthrough technologies:** Proving, scaling and reducing the costs of low emissions manufacturing technologies, including CCS, through co-investment in R&D and financial incentives to trial and scale new technologies.
- **Reduce the cost of clean energy:** Significant public investment in clean energy generation, firming and infrastructure in order to deliver the cost-competitive, firm and delivered clean energy that underpins low emissions manufacturing.
- **Stimulate 'green manufacturing' demand:** Stimulating demand for low emissions products through consistent national standards and accreditation developed in partnership with industry, and changes to government procurement.

This approach to public investment seeks to drive emerging technologies towards cost parity with existing technologies, while also making broad public investment in clean energy, being an essential and prerequisite enabler of decarbonisation in other sectors.

With this approach, additional measures to address carbon leakage, such as a CBAM, are likely to still be required, but the quantum of competitiveness gap they seek to address, or the distortions they seek to remedy, are reduced.

Thank-you for the opportunity to comment on the Carbon Leakage Review: Consultation Paper

Yours Faithfully,

Ben Eade
Chief Executive Officer
Manufacturing Australia