Building a better working world

# Carbon pricing and the new competitive edge: The EU's Carbon Border Adjustment Mechanism and what it means for your business

**An EY Net Zero Centre Report**

# The European Union will soon introduce a ‘green tariff’ that will transform how countries and companies approach international trade in the context of climate change.

**In December 2022, the member states of the European Union and the European Parliament reached agreement to introduce the Carbon Border Adjustment Mechanism (CBAM).**

The CBAM aims to prevent ‘carbon leakage’ by imposing a tariff on some emissions-intensive imports: iron, steel, cement, fertilisers, aluminium, electricity, hydrogen and some chemicals.

While just 0.9% of the value of exports from Australia or New Zealand will be captured by CBAM, at least initially, the policy sends a clear signal to the world. Countries and companies can no longer write their own domestic emissions pricing policies — because if their ambition is not adequate, other countries can step in.

So, what do you need to know about this carbon pricing mechanism today, and what it could mean for your company on the road ahead?

# What do we know so far?

**The European Union has set a demanding target of 55% greenhouse gas emissions reductions on 1990 levels by 2030.**

The CBAM is a policy tool which seeks to avoid disadvantaging EU-based producers as a result of EU climate policies. It does this by placing a price on the carbon emitted during the production of carbon-intensive goods that enter the EU. While this might seem deliberately punitive to the EU's trading partners, its main objectives are domestic. Ensuring that imports face a carbon price that is equivalent to that incurred by EU manufacturers allows domestic carbon pricing (and broader climate policies) to be more safely strengthened.

The policy aims to avoid 'carbon leakage' which occurs when companies move their carbon-intensive production to countries with less stringent climate policies, or when products are replaced with more carbon-intensive imports. In the case of CBAM, producers in non-EU countries are incentivised to reduce their greenhouse gas emissions, or compensate for that through the purchase of certificates.

While CBAM will strengthen climate policy in the EU, it also throws down the gauntlet to other countries, challenging governments to set more ambitious domestic carbon pricing policies.

## Timeline

**13 December 2022**

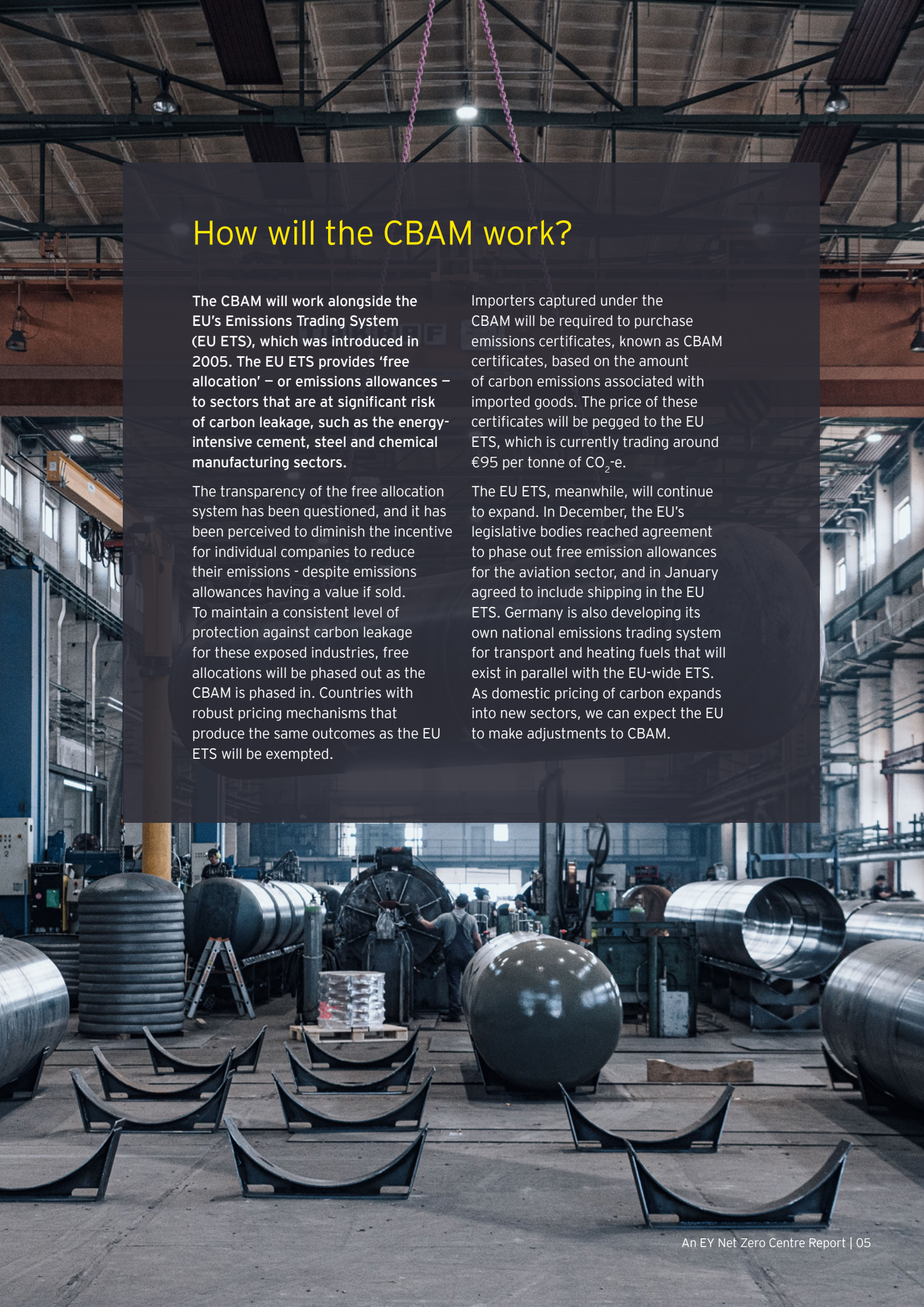
Political agreement is reached on the CBAM, with final legislation still to pass.

**1 October 2023**

CBAM enters into force in its transitional phase, with importers of goods in the scope of the new rules required to report direct and indirect greenhouse gas emissions, without making any financial payments or adjustments.

**2 January 2026**

Permanent system enters into force, with importers required to declare annually the quantity of goods imported into the EU in the preceding year and their embedded emissions. They will then surrender the corresponding number of CBAM certificates.



# How will the CBAM work?

**The CBAM will work alongside the EU's Emissions Trading System (EU ETS), which was introduced in 2005. The EU ETS provides 'free allocation' – or emissions allowances – to sectors that are at significant risk of carbon leakage, such as the energy-intensive cement, steel and chemical manufacturing sectors.**

The transparency of the free allocation system has been questioned, and it has been perceived to diminish the incentive for individual companies to reduce their emissions - despite emissions allowances having a value if sold. To maintain a consistent level of protection against carbon leakage for these exposed industries, free allocations will be phased out as the CBAM is phased in. Countries with robust pricing mechanisms that produce the same outcomes as the EU ETS will be exempted.

Importers captured under the CBAM will be required to purchase emissions certificates, known as CBAM certificates, based on the amount of carbon emissions associated with imported goods. The price of these certificates will be pegged to the EU ETS, which is currently trading around €95 per tonne of $CO_2$-e.

The EU ETS, meanwhile, will continue to expand. In December, the EU's legislative bodies reached agreement to phase out free emission allowances for the aviation sector, and in January agreed to include shipping in the EU ETS. Germany is also developing its own national emissions trading system for transport and heating fuels that will exist in parallel with the EU-wide ETS. As domestic pricing of carbon expands into new sectors, we can expect the EU to make adjustments to CBAM.

# Value of Australian and New Zealand exports impacted by CBAM

The CBAM will initially apply to imports of certain carbon-intensive goods, with aspirations to expand over time. In 2026, the European Commission will evaluate whether to extend the scope to include other products and sectors, such as agriculture and transport.

| | Australia (AU$ M) | New Zealand (AU$ M) | Australia and New Zealand (AU$ M) |
|---|---|---|---|
| **Iron and steel** | 130 | 17 | 147 |
| **Cement** | 0.2 | - | 0.2 |
| **Aluminium** | 297 | 109 | 407 |
| **Fertilisers** | 2 | 0.007 | 2 |
| **CBAM total** | 429 | 127 | 556 |
| | 0.08% | 0.19% | 0.09% |
| Total overall | **534** | **67** | **601** |

*Australian dollar value of exports for 2021-22*

# How are other countries responding?

The European Union could be the catalyst for a chain reaction. Japan, Canada and the UK, among others, are considering similar schemes to CBAM, while the United States' proposed Polluter Import Fee promises to place tariffs on imports from nations without ambitious climate change policies. The Australian Government has announced it will commission a review to examine the feasibility of an Australian CBAM in the context of the Safeguard Mechanism reforms.

Ultimately, exporting countries could face a choice between taxing their companies at home or allowing them to be taxed at the border in Europe. As CBAMs become more common, countries will increasingly make the choice to capture this revenue internally.

| Scheme | Date of enforcement | Price per $tCO_2$-e | Level of free allocation |
|---|---|---|---|
| Emissions Trading Scheme (European Union) | 2005 | €95 | Varies per sector, decline rate is between 0.2% and 1.6% per year from 2021, depending on the level of trade-exposure. |
| Safeguard Mechanism (Australia) | Currently in consultation; implementation proposed from 1 July 2023 | Proposed cap of AU$75 | Starts at 100%, with a 4.9% annual decline rate to 2030. |
| Emissions Trading Scheme (New Zealand) | September 2008 | NZ$65 | Started at 90% in 2021 and currently declining at 1% per year. |

*Figures as at 15 March 2023.*

# What does this mean for my company?

The CBAM will be gradually phased in, and there will be no financial penalties during the transition phase. Instead, companies will be required to report on the emissions associated with products they wish to sell within the EU. Once the permanent system enters into force on 1 January 2026, companies captured will have additional financial obligations. The European Commission will calculate the price of CBAM certificates to reflect the average weekly price of ETS auctions.

Determining the carbon footprint of affected products — covering everything from materials extraction to shipping — will require complex calculations that require technical expertise and robust data collection.

Multinationals will be sharpening their supply chain scrutiny to understand the composition of their emissions. We expect this will drive change along the length of supply chains, regardless of whether the end product is exported to the EU. CBAM will also have indirect economic impacts, such as increasing the cost of Chinese steel imports to the EU, which may itself be manufactured with Australian iron ore and coal.

Businesses trading in captured commodities and products will be forced to either reduce their emissions, absorb CBAM's carbon price or pass it down the supply chain. The CBAM will incentivise a wide range of companies to either clean up their act or pay the price. While CBAM's impact on Australia and New Zealand is currently small, it could accelerate efforts from other countries to introduce their own CBAMs - and this could have far bigger impacts on our markets.

Consider the following three sector examples ...

## Aluminium

Aluminium production is an energy-intensive process that requires large amounts of electricity to extract the metal from its raw material, bauxite.

The multi-stage process starts with bauxite extraction. Alumina refineries process bauxite ore to produce alumina, and then aluminium smelters use an electrolytic process to extract aluminium metal from alumina. This smelting process is undertaken in large industrial furnaces at temperatures of around 950°C and requires large quantities of electricity. The chemical reaction during this process creates carbon dioxide emissions in order to remove the oxygen from alumina.

According to the Australian Aluminium Council, Australia is currently the world's largest producer of bauxite, the second largest producer of alumina and the sixth largest producer of primary aluminium. While some companies are investing in renewable energy and adopting more efficient technologies, the industry is mainly reliant on electricity generated from coal. The carbon intensity of Australian aluminium means that, unless emissions pricing in Australia is judged to be robust, exports to the EU could face steep border tariffs. The Safeguard Mechanism by itself might not be adequate protection for the aluminium sector as it places no emissions price on electricity generation.

In contrast, New Zealand's only aluminium smelter, located on the South Island's Tiwai Peninsula, uses renewable hydroelectricity, making among the lowest carbon aluminium smelters in the world. In addition, all of the emissions from aluminium production in New Zealand are already covered by the domestic emissions trading scheme. Therefore, CBAM might encourage more New Zealand aluminium to be exported to the EU.

## Steel

Globally, steel directly contributes around 7% of global energy sector emissions, according to the International Energy Agency.

To make steel, either iron ore or iron sand is processed in a blast furnace, where it is heated to very high temperatures with the help of coking coal. The combustion of this coal releases large amounts of carbon dioxide into the atmosphere. Blast furnace steelmaking produces an average of 2.2 $tCO_2$-e per tonne of crude steel, globally, including significant indirect emissions from imported electricity and heat.

Australian steel mills use iron ore, while New Zealand's mill at Glenbrook uses iron sand. While raw materials are different, the chemical processes are broadly equivalent. Therefore, any variation in exposure to CBAM is likely to come from the difference in the domestic emissions pricing scheme. Importantly, Australia's Safeguard Mechanism doesn't cover emissions from power consumption within the steel-making process, but the NZ ETS does.

## Agriculture

Agriculture is not currently captured by the CBAM – but it does demonstrate how the implications of the CBAM extend more broadly than just to the sectors currently targeted by the EU.

Agriculture is both vulnerable to the effects of and contributes to the impact of climate change. Around half of New Zealand's emissions come from agriculture, and within that, 25% from dairy farming. On the other hand, agriculture accounts for around 16% of Australia's national emissions inventory. Measures to reduce emissions have, to date, relied on voluntary industry agreements but the sector is also working on new scientific developments, such as methane inhibitors and different forms of feed.

While it could be some time before agriculture is captured in any CBAM-like mechanism, it demonstrates that tariffs, standards or other restrictions can be imposed at the border by importing countries if the exporters aren't meeting "their side of the bargain". This could take the form of a pricing regime (like the CBAM), but it could also take other forms.

The best pathway forward for Australian and New Zealand agriculture exporters is to, at the very least, stay ahead of the requirements and standards being developed and imposed in the countries to which they export products.

# What comes next?

**At first, the EU's Carbon Border Adjustment Mechanism will influence a small fraction of Australian and New Zealand exports – but it is a trend that requires careful and thoughtful navigation.**

The EU has sent a clear signal to governments and corporations around the world: If you don't set policies to drive ambitious emissions reductions, we will do it for you.

The CBAM may provide impetus for Australia and New Zealand to develop stronger domestic carbon pricing mechanisms as industries grapple with the thorny issue of whether it is better to pay a carbon tax to their domestic government or to the European Union and other governments overseas.

Countries and companies that fail to clean up their carbon act risk their international competitiveness. As they traverse the road to net zero, corporate leaders should quicken their pace now – not only because it is the right thing to do, but because failing to lead today could come at a cost in the years ahead.

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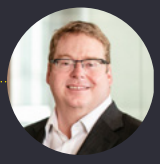
# How can EY help?

**The EY Net Zero Centre helps companies cut through the complexity, manage the uncertainty and create clear pathways to net zero emissions.**

Headed by the region's leading climate change professionals, the Net Zero Centre supports EY clients to make the right decisions at the right times and set themselves on a pathway for success.

The team can help you turn disruption into opportunity.

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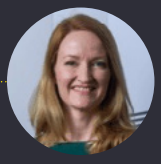

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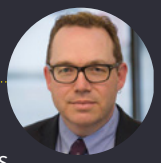

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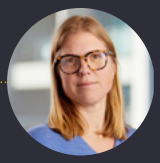

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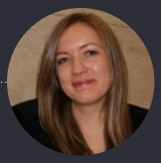

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