



The Carbon Border Adjustment Mechanism

What does it mean for the energy storage sector?

1. Introduction: The Reasons for the CBAM and What to Expect

Since its introduction in 2005, the EU Emission Trading System has addressed the risk of carbon leakage mostly through the issuing of a higher share of free allowances for selected sectors (such as the manufacture of industrial gases, mining of hard coal, casting of iron, manufacture of cement). With each phase of the ETS, the list of sectors deemed at risk of carbon leakage has decreased, and the system is gradually dismissing free allowances in favour of other mechanisms.

With the Fit for 55 package, the Carbon Border Adjustment Mechanism was announced: a system aimed at creating a level-playing field between EU producers and importers of certain products. The sectors covered by free allowances under ETS and sectors that will be now covered by CBAM overlap: the decrease in free allowances could make EU producers face relevant challenges from importers, and the CBAM aims at preventing this.

2. Sectors Involved

The new mechanism will apply on imports of cement, electricity, certain fertilisers, and certain iron, steel and aluminum products from non-EU countries, except countries covered by the EU ETS, i.e., Iceland, Liechtenstein, Norway and Switzerland.

The CBAM will cover initially direct emissions from production of these goods, and in a second phase (probably by 2030) also indirect emission. Moreover, in the second phase the mechanism could be extended to more sectors.

With regards to electricity, the draft envisions a “soft” approach: the final proposal specifies that once third countries are integrated into the European internal energy market, “technical solutions” should ensure that the CBAM is applied to power exported from such countries into EU territory. If technical solutions can’t be found, these countries should be exempted from the CBAM until at least 2030. This exemption would apply if certain conditions were met, such



as developing a road map, implementing a carbon pricing mechanism with an equivalent price to the EU ETS, and committing to achieving carbon neutrality by 2050, as well as adhering to EU rules in the fields of energy, environment, and competition.

3. Procedure: How to be Compliant?

The CBAM procedure will entail an obligation to surrender CBAM certificates reflecting the carbon price of the embedded emissions in covered items imported into the EU. Only authorised declarants, registered with national authorities, will be allowed to import the items in question through the purchase of the certificates. They will be required to provide a yearly report (by 31st of May each year) on the embedded emissions in imported covered products, as well as a corresponding number of CBAM certifications. Third-country producers are liable for informing EU importers about embedded emissions for covered products. Operators and installations in third countries may register under the CBAM, and approved declarants may utilize the verified information on the embedded emissions of such operators and installations as the basis for their own declaration. Where actual emissions cannot be determined, default values will be used¹: this solution could decrease the foreseen high administrative burden, and lead to easier implementation of the mechanism.

From January 1, 2023, to December 31, 2025, the mechanism will only entail a "reporting obligation". The definitive version of the CBAM and the requirement to surrender the certificates will only start to apply as of January 1, 2026, at the earliest; the gradual phase-in will give time to implement an effective monitoring and certification system, using the 2023–2025 timeframe to collect data from importers.

4. International dimension: The Role of Third Countries

The climate policy of third countries will strongly impact the role of CBAM: importers can deduct any carbon costs incurred by third country producers at home from the CBAM certificates they have to purchase. Therefore, countries that will have an ETS in place covering those sectors before 2026 could be exempted from the CBAM. The countries foreseen to be most affected by the CBAM are Russia, China, Turkey, Ukraine, and India: in the next few years, the CBAM could nudge some of these countries into putting a form of carbon pricing in place (as it's already the case in China, for example). Nonetheless, there's still no information on how the countries' agreements on carbon pricing will work in practice.

¹ The proposal provides two options to determine these values: 1) based on the average in the country of production according to data or literature and 2) in the absence of 1, based on the average of the worst 10% performers in the EU.



5. The Impact of Energy Storage

Addressing carbon leakage through a system targeting imported products can help achieve emissions goals as set by international agreements: as imported electricity would be subject to the same (or similar) costs as EU-produced electricity, the risk of importing emission-intensive energy could decrease. The same would apply to production processes for steel, iron, cement, fertilisers and other products covered by CBAM: these processes are extremely energy intensive, and the industries could benefit from their decarbonisation, which, in the EU vision, would primarily realise through electrification and hydrogen use; therefore, large-scale energy storage and industry-level solution may be essential in ensuring that energy intensive industrial processes will be decarbonised in the EU as well as in third countries.

For manufacturers, some provisions need to be especially underlined: battery manufacturers importing in Europe and battery manufacturer based in the EU but importing raw materials from third countries could be especially affected, as different materials needed for battery production would fall into the categories at risk for carbon leakage, and are therefore included in the CBAM (such as iron and steel). It's important to point out that lithium is not mentioned in the proposal as, for now, only chemicals imported as fertilisers are subject to the CBAM; as the European Union still heavily relies on import of lithium², this omission doesn't raise concerns as far as level-playing field for internal producers is concerned, and in fact makes it easier for the internal battery manufacturing industry to keep growing.

Embedded emissions in all goods will be calculated through the methodology laid out in Annex III of the Proposal, both for simple (requiring only input materials and fuels with zero embedded emissions) and complex goods (made up of different simple goods).

6. Complimentary Legislation: The Link with the ETS

Existing strategies to manage the risk of carbon leakage include the free allocation of EU ETS allowances and, in some circumstances, financial measures to compensate for indirect emission costs caused by rises in energy prices as a result of the EU ETS. A CBAM is an alternative to those initiatives and, as such, would have to gradually replace them. The Commission sees the CBAM an integral part of the ETS, and the phase-out of free allowances is fully intertwined with the phase-in of this mechanism.

However, in order to allow suppliers, importers, and traders to adapt to the new regime, the decrease in free allocation should be handled appropriately while the CBAM is phased in, so that they are not cumulative, and the new system doesn't pose as an excessive administrative and financial burden to producers and importers.

² <https://europeanlithium.com/lithium/lithium-in-europe/>



7. Conclusion

Given the novelty of this mechanism, and the concerns it has raised (and it's still raising) among EU decision makers, third country governments and industry representatives, it seems likely that its approval process will entail amendments and political compromise. Energy storage in the next year can support the decarbonisation of industrial processes and electricity production in third countries, ensuring a smooth transition towards an economy where GHG emissions are not externalised but taken into consideration as active costs.