Carbon Border Adjustment Mechanisms (BAM)

LafargeHolcim Perspectives, January 2020

LafargeHolcim

Executive Summary

- LafargeHolcim supports the objectives of the Green Deal and **is comitted to contributioning to the achievement of a carbon-neutral economy by 2050**.
- Competitive EU manufacturing, driven by investments and anchored in the carbon-neutrality transition, requires **a level playing field with non-EU importers with regards to carbon costs**.
- The objective must be for non-EU importers to bear the same CO_2 costs as EU domestic producers. Free allocations that are awarded to EU producers must therefore be discounted from the carbon costs levied on importers. This allows for the **BAM to be compatible with the EU ETS, while remaining a mirror measure that does not interfere with the EU carbon budget and its associated mechanisms**.
- The BAM mechanisms **must be dynamic in order to automatically factor-in the unpredictable variations in free allocations and carbon prices** (vs. being based on fixed averages), and must be based on verified emissions of imports.
- **The BAM mechanism must be tested and phased-in in parallel with the continuation of the EU ETS mechanisms**, until it is fully and successfully operational and legally secured.

Context

Achieving the common objective of transitioning to carbon-neutral construction relies on:

- Ensuring the attractiveness of local production, with local resources, for local use, which among many other things allows to minimize transportation, energy use and associated emissions;
- Promoting and incentivizing investments and innovation in circular solutions, renewable energy and advanced technologies such as carbon capture use and storage;
- Creating a demand for low carbon building materials and solutions.

Competitive EU manufacturing, driven by investments and innovation and anchored in the low-carbon transition, is conditional on a level playing field with non-EU importers with regards to carbon costs.

With reduced Historical Activity Level (HAL) and emission factor benchmark, this prerequisite will be accentuated during phase IV of the EU ETS. The expected allocation deficit puts some 40 million tonnes of EU-manufactured clinker at risk of being offshored by 2030 (equivalent to >20% of the EU demand).

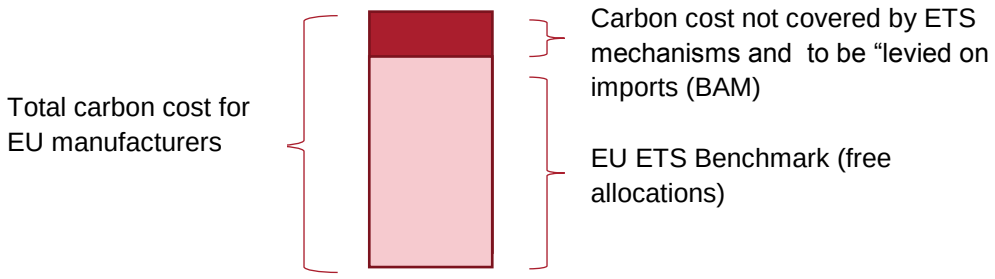
The construction sector's transition towards carbon-neutrality will significantly contribute to reaching Europe's ambition to be a carbon neutral continent by 2050. The import of more carbon-intensive products to meet the demand for construction materials in Europe will slow down this transition and hamper low-carbon investments and innovation in European assets.

In this context, LafargeHolcim takes the view that the existing EU ETS needs to be complemented by a carbon border adjustment mechanism. It is a necessary measure to maintain a fair competition as the free allocations under ETS phase IV will not be sufficient to enable EU-based manufacturing to compete fairly with non-EU imports that do not have equivalent carbon costs. In turn, it will provide the necessary assurance to invest in low carbon technology across European assets.

BAM design options for the cement sector

- **Compatibility with EU ETS and free allocation**: As EU ETS phase IV comes into force, free allocations are unlikely to cover the full carbon cost paid by EU manufacturers. A BAM should cover that cost difference and does not require any changes to the EU ETS as it is fully compatible and complementary.

A BAM should take into account the free allocations received by EU manufacturers in order to calculate the carbon adjustment in a non-discriminatory manner. This allows to ensure that it does not interfere with the EU's carbon budget, that it remains separate from the EU ETS but be made compatible with it.



- **Measuring the CO2 content of imported clinker / cement**: CEN EN 19694-3[1] is the standard used by the cement industry to measure and report its CO_2 emissions. It forms a globally harmonised methodology for the calculation CO2 emissions from clinker and cement production. It also provides the basis for the GCCA (Global Cement and Concrete Association) Guidelines for the monitoring and reporting of CO2 emissions from cement manufacturing. These guidelines are intended as a tool for cement companies worldwide and form the basis for the GNR (Getting the Numbers Right) database which addresses all direct and the main indirect sources of CO2 emissions related to the cement manufacturing process. This standard is used by the industry globally and forms an adequate basis to report the verified emissions of any import.

- **A dynamic BAM**: the system must take into account the unpredictable variations in carbon prices and free allocations (e.g. in case a Cross Sectoral Reduction Factor applies which would have significant impact on the level of free allocations and thus carbon cost imposed on EU producers). Therefore, it must be based on a dynamic methodology that enables to factor-in the variability and uncertainty of the regulatory regime, and must not be based on fixed EU averages of past performances (which in most case would not be an accurate reflection of the current situation).

In practice, the charge (for the cement sector) could look like as follows:

Carbon import charges (€/t clinker) = (verified emissions[2] of import + associated transport emissions in kg CO2/t clinker) - (EU ETS clinker benchmark in kg CO2/t clinker * CSRF) multiplied by the carbon price (€/kg CO2)

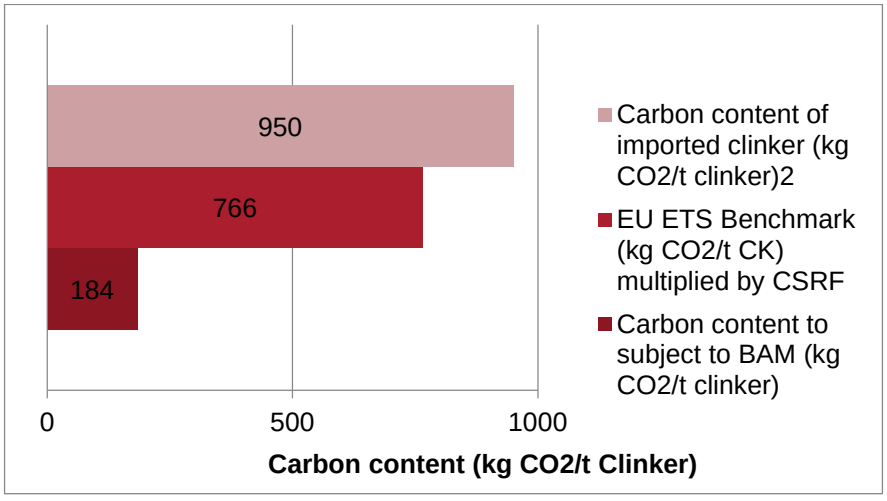


Figure 1: hypothetical calculation of carbon content of imported clinker submitted to BAM

[1] Stationary source emissions – determination of GHG emissions in energy-intensive industries – Part 3: cement industry
[2] Calculated on the basis of EN19694-3
[3] If import verified emissions are not available, a global penalised average must be applied.

- **Carbon price**: The carbon price used to calculate the charges must be as close as possible to actual spot prices, given the significant volatility that currently exists on the carbon market and uncertainties linked to large list of factors (Brexit, coal plant closures, etc.). The use of past annual averages would more than likely not be representative of the situation in a future transaction.

- **Ability of the cement sector to pass-through costs:** The methodology for calculating the carbon border adjustment should not consider cost-pass through in the case of cement. Numerous studies have shown how cement is, economically speaking, a commodity product with a high level of demand- and supply-side substitution, thereby limiting cost pass-through. Long business cycles and moderate or no growth restraints the possibility to implement cost pass-through. Furthermore, cost pass-through is specifically unlikely in the presence of high price elasticity, which is the case for cement, and especially in border markets (e.g. along the Mediterranean coast).The inability to pass through costs has been exemplified recently with specific product offerings that included a specific carbon price.

Overarching Principles

1. We fully support the principle of a BAM that would at first be introduced in a **pilot phase as off 2021 in parallel with EU ETS** (incl. free allocation).
2. A gradual phase-out of ETS mechanisms could be envisaged, but only after the trial phase and **only when the mechanism is fully tested, operational and legally secured**.
3. The full deployment of a BAM, and phase-out of ETS mechanisms, requires to ultimately encompass all sectors that compete in downstream markets to **avoid distortions of competition**.
4. The system must be based on **verified emissions** to be adjusted compared to the EU ETS benchmark (incl. any adjustments applied to the benchmark over time such as a cross-sectoral correction factor). It should not be based on EU averages of past performances as these would be meaningless for non-EU imports.
5. Given the significant fluctuations in carbon prices, the system must take into account the **actual spot price** and not yearly averages.

About LafargeHolcim

LafargeHolcim is the global leader in building materials and solutions. We are active in four business segments: Cement, Aggregates, Ready-Mix Concrete and Solutions & Products. LafargeHolcim experts solve the challenges that customers face around the world, whether they are building individual homes or major infrastructure projects. Demand for LafargeHolcim materials and solutions is driven by global population growth, urbanization, improved living standards and sustainable construction. Around 75,000 people work for the company in around 80 countries.

LafargeHolcim supports the objectives of the Green Deal and is committed to contribute to the achievement of a carbon-neutral economy by 2050. We aim to lead the transition towards low-carbon and circular construction by introducing more low-carbon products and solutions to our customers worldwide and by being at the forefront of innovation in construction materials and solutions.

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