

## **CBAM Electricity Provisions Threaten Renewable Integration and Energy Market Development in EU Neighbouring States - Recommendations by ZETA**

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**Responsible:** Jan Haizmann  
[j.haizmann@zeta-global.org](mailto:j.haizmann@zeta-global.org)  
+971 52 1456143

### **To the European Commission**

The Zero Emissions Traders Alliance (ZETA) writes to express deep concern regarding the current implementation of the Carbon Border Adjustment Mechanism (CBAM) as it applies to electricity imports into the European Union. As structured, the onerous conditions imposed by the Regulation effectively prevent renewable electricity producers in neighbouring third countries from demonstrating the actual low-carbon intensity of their exports. They are thereby forced to default to the average carbon intensity of electricity generated and supplied on their host grid. This approach risks disincentivising renewable energy development outside the EU, discouraging cross-border energy trade between EU Member States and their neighbours, and ultimately increasing carbon intensity across interconnected electricity systems.

### **Key Regulatory Barriers**

CBAM permits importers to apply actual embedded emissions rather than default carbon intensity values, if five cumulative conditions are met. We highlight below how most of these conditions create substantial and often insurmountable obstacles for renewable electricity exporters.

#### **a) Power Purchase Agreement (PPA) requirement**

*"The amount of electricity is covered by a power purchase agreement between the reporting declarant and a producer of electricity located in a third country."*

Cross-border PPAs between EU importers and non-EU renewable producers are unlikely to materialise. The need to guarantee congestion-free transmission to a delivery point at the time of physical export (see point d) introduces a delivery risk that no off-taker or financier can reasonably bear. Without a PPA, developers cannot easily secure investment. As a result, they are forced to serve only domestic markets on the basis of long-term delivery obligations, rather than rely on cross-border PPAs involving export to the EU. This is in spite of the attraction of a larger and more attractive market for RES-E in some EU countries. A dearth of PPAs will not preclude completely the scope for renewable energy exports from third countries, but generators are likely only to export to the EU for short and sporadic periods.

Some could argue that the hindrance to export will be beneficial for third countries as a whole - since it could facilitate the use of renewable energy domestically, thereby decreasing average grid emissions intensity in those countries, and potentially reducing CBAM's impact on energy intensive industrial sectors covered by it (steel, aluminium etc). The reality is more complex. Many EU periphery markets may lack sufficient demand or financing to absorb large-scale renewable capacities, to compensate for reduced EU demand for clean energy sources in these countries. Markets outside the EU are often in their early stages of clean tech development, and in the electricity, market suffer from a lack of liquidity, in terms of both numbers of off-takers and offers of suitable profiles and products by suppliers. Furthermore, the time lag with the EU's average grid intensities means that it will take years for the benefits to materialise for third countries.

In addition, this hindrance undermines regional grid decarbonisation efforts, as these third countries will not be able to export excess clean power production to the EU, as it will be less competitive due to CBAM. This will lead to increased network balancing costs, in the EU and third countries, as electricity won't be able to flow as freely to where it is in demand. This will also decrease regional energy security by limiting development and use of renewable energy assets in friendly third countries. Development of renewable assets in the UK, Türkiye and the Balkans, will be necessary if the EU wants to meet its NetZero targets and end its reliance on energy imports from geopolitical rivals, in a cost-efficient manner.

## **b) Congestion-free delivery requirement**

*"The installation producing electricity is either directly connected to the Union transmission system or it can be demonstrated that at the time of export there was no physical network congestion at any point in the network between the installation and the Union transmission system."*

Whilst in theory regional congestion data is available from platforms such as JAO & SEE CAO, not all cross-border connections are covered. At some third country borders transmission capacity is still bilaterally allocated (such as between Turkey and Bulgaria or between Serbia and Romania, or at the borders of Ukraine for daily allocation). Congestion data is not released as a singular figure rather it is made up of a range of separate reports.

Congestion data is only available at most a few hours beforehand, based on the outcome of transmission capacity booking auctions across the interconnectors. Short-term capacity auction windows and the variability this creates makes long term PPAs risky, as no market participant can confidently structure transactions to meet this criterion. JAO and SEECAO (the TSO interconnector capacity booking platforms) in coordination with third country TSOs should offer longer term capacities such as 3-5 years ahead, to enable PPA participants to hedge their exposure.

### **c) Emissions threshold**

*"The installation producing electricity does not emit more than 550 grammes of CO<sub>2</sub> of fossil fuel origin per kilowatt-hour of electricity."*

The threshold still permits modern natural gas combined cycle plants to qualify, despite their fossil fuel reliance. When combined with an ETS (as in the UK) this can, at times, create the perverse incentive of making cleaner fossil electricity more cost effective for EU importers than pure renewables (if a cross-border PPA cannot be secured). Qualifying fossil fuel generated electricity would then paradoxically be subject to a lower applicable carbon emissions penalty than competing RES-E generated in the country of export. This creates an inequitable and counterproductive result.

### **d) Monthly verification across jurisdictions**

*"The fulfilment of the above criteria is certified by an accredited verifier, who should receive at least monthly interim reports demonstrating how those criteria are fulfilled."*

Accredited verifiers under the EU ETS typically assess generation installations, not grid conditions or cross-border transmission dynamics. Expecting them to verify congestion status and delivery alignment across jurisdictions is unrealistic, without direct cooperation from TSOs. The fair implementation of the basic idea of CBAM definitely requires a rethinking of this method. The objective should be to achieve equal treatment internationally as between categories of generators using specific technologies, rather than implicitly discriminating according to their location and jurisdiction. Applying the same principles to renewable energy generators inside and outside the EU will send a very powerful signal for new environmentally friendly investments, which are lagging behind in a number of jurisdictions.

## **Adverse Market and Climate Impacts**

As they stand, the CBAM electricity provisions:

- Disincentivise third countries from developing renewable capacity for export to the EU;
- Undermine cross-border PPA development between EU and non-EU countries, which is essential to unlocking climate finance;
- Force renewable producers to bear full carbon costs by defaulting to grid averages, and disincentivise a fast energy transition in third party energy grids;

- Increase the cost of electricity imports and hinder grid decarbonisation in the EU and its periphery;
- Reduce regional grid integration and energy security, by introducing a layer of complexity in commercial transactions between EU and non-EU countries This runs against, for instance, the efforts of the Energy Community Contracting Parties to harmonize and integrate in the EU grid.

The intent of CBAM to address carbon leakage and level the playing field is commendable. However, treating electricity like a conventional good rather than acknowledging its grid-based and instantaneous nature leads to severe unintended consequences.

## **Solutions and recommendations**

### **Update grid emissions intensity baselines**

CBAM currently uses five-year rolling average grid carbon intensity figures calculated by the International Energy Agency (IEA). This penalises rapidly decarbonising grids. For example, the UK's emissions intensity in 2024 is estimated at 107gCO<sub>2</sub>/kWh, while the CBAM-calculated average for 2020 to 2024 is 146gCO<sub>2</sub>/kWh. This represents a 36% higher carbon price that EU importers will be paying for UK renewable energy. Using the most recent annual data, or even quarterly or monthly updates (as available in the UK), would better reflect real conditions and reward quicker progress to grid decarbonisation.

### **Remove the congestion-proof requirement**

We concede that removing the grid congestion requirements completely, whilst making reporting much easier, would open up a greater risk of non-renewable electricity imports entering the EU. To mitigate this risk, the EU could agree to recognise RES-E GoOs issued in specific third countries as verifiable evidence of generation from a renewable source. Especially when third country GoOs are issued in a harmonised, verifiable and more granular format the reassurance rendered could be equivalent to that provided for by the RFNBO Regulation inside the EU. To facilitate this solution, the EU should encourage the expansion of the Association of Issuing Bodies (AIB) to third countries. This would help harmonise GoO standards between countries and ensure that GoOs are only issued in respect of energy verifiably injected into the grid over any given period (thereby diminishing the risk of double counting or fraud).

## Conclusion

CBAM should not unintentionally penalise renewable electricity exports from third countries to the EU. The current design of the scheme disincentivises clean energy investment increases energy transition costs and undermines regional energy integration and decarbonisation in neighbouring countries. We urge the Commission to:

- Revisit the eligibility conditions for applying actual embedded emissions;
- Recognise renewable power GoOs from credible schemes in third countries as evidence of RES-E generation;
- Facilitate with the help of ENTSO-E capacity building and best practice, to improve the current accuracy and transparency of grid emissions data;
- Engage with neighbouring states and market participants to co-design workable implementation guidelines.

Failing to act risks undermining the EU's leadership in climate policy and its ambitions of NetZero.

Sincerely,

**Jan Haizmann on behalf of ZETA**

### **ZETA (Zero Emissions Traders Alliance)**

ZETA is a non-profit foundation designated to develop transparent markets for trading clean energy carriers (molecules and electrons). ZETA thus, promotes policies, standards and instruments, facilitating trading of renewable origin and fossil carbon content attributes related to physical energy commodities.

ZETA's focus is global, and it offers a meeting place and a public platform for companies and organisations with an interest in developing wholesale traded markets of climate neutral products.

ZETA's vision is that the almost entirely fossil based energy markets of today will migrate to clean energy markets through 'Clean Energy Hubs'. Clean energy hubs offer non-discriminatory access for suppliers and buyers of molecules. Through standardisation, new clean energy hubs shall enable physical delivery OTC trade in a growing number of commodities either with certificates, or the separate title transfer of certificates evidencing the certified carbon neutral production of the traded molecules. By enabling a separate title transfer, the carbon reducing production is expressed in a price thereby creating additional value for the buyer and seller.