# Carbon Border Adjustment Mechanism: Inception Impact Assessment

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**About National Grid Interconnectors**

National Grid Interconnectors has 50% ownership shares in assets representing nearly 8,000MW[1] of cross border electricity interconnectors between the UK and EU. These assets facilitate delivery of many billions of euros of consumer welfare through lower energy costs, security of supply and the integration of renewable forms of electricity generation.

**Summary of Views:**

We are committed supporting the EU and UK to reach their ambitious climate change targets. Our multi-billion-euro investments in cross-border electricity infrastructure will play a vital role in optimising the deployment of renewable energy resources into and around the Europe helping to minimise emissions from electricity generation across the continent.

We are concerned that the application of a carbon border adjustment, especially to electricity, could harm progress in this sector. All carbon border adjustment proposals rely on some degree of assessment of the carbon intensity of the electricity. This inevitably introduces a significant administrative burden on all flows of electricity, whether they are zero-carbon or from the most polluting forms. These measures typically rely on some form of national measure of carbon intensity together with exemptions for products for lower than average carbon intensities. This means that the most burdensome regulations to prove eligibility for exemptions fall upon the lowest carbon intensity products. The changing nature of the electricity market, in particular the increasing proportion of weather dependent variable generation from wind and solar, means such carbon intensity varies significantly, and this – rather than a simple average would need to be taken into account.

Such an administrative burden will disincentivise the cross-border trade in low carbon intensity products. As a result, low carbon products could be replaced with higher carbon intensity imports (the most carbon intensive products which pay a carbon border adjustment on only the lower national average measure will perversely benefit the most) or by higher intensity EU production. This cannot be to the benefit of EU consumers or the EU's efforts against climate change.

**Next Steps**

We agree that a detailed examination of a border carbon tax adjustment should be taken forward.

We would suggest that the following key principles are followed:

- Border carbon adjustments must accurately define the carbon content of the import, recognising all of the potential variations in carbon content;
- Border carbon adjustments must not present an undue administrative burden on imports and especially low carbon imports such that any perceived benefits in carbon reduction are outweighed;
- Border Carbon Adjustments should not act to "skew" domestic markets against cross-border trade
- The efficacy of a border carbon adjustment in reducing carbon emissions in the producing nation must be assessed accurately prior to implementation.

*[1] Of this capacity, approximately half is operational. The remainder is under construction with all capacity expected to be operational by 2024.*

**Difficulties with border carbon adjustments**

Carbon taxation is a complex issue. The most successful mechanisms such as the EU ETS are a tax on production levied on emitters of carbon. This leads to the issue identified in the Impact Assessment that producers outside of the EU do not then face the same taxation, potentially disadvantaging domestic producers and/or "offshoring" carbon emissions rather than eliminating them.

Carbon taxes on consumption are very difficult to establish due to the immense complexities in determining how much carbon has been emitted, directly or indirectly, during their production. However carbon border adjustments necessarily have to operate on this basis. The issue is then one of how does one accurately estimate the carbon content, and in such a way that it does not discriminate between the same imported good with different levels of carbon content or indeed between goods imported and those produced nationally.

**Energy as a case study**

Energy is assumed to be a relatively straightforward commodity on which to apply a "consumption" tax at the border. International efforts to do so have been proven to be difficult to implement (California and Quebec are notable examples of where some limited progress has been made).

This is simply because while an "average" value of electricity carbon intensity could be determined this is subject to very significant variations. In the UK for example the carbon intensity of electricity varies hugely depending on the wind and solar conditions, and the level of demand.

It is complicated still further by the fact that exported energy may not be in any way representative of a national average. Exports may be driven by surplus renewables. Exports could be of contracted energy only from zero carbon resources. Exports may even have originated in another country entirely. However this is completely unaccounted for by a "national" measure of carbon intensity.

As a consequence it is necessary to derive complex accounting techniques for border carbon adjustments to ensure that lower-carbon imports are not unfairly penalised.

Additionally for commodities such as electricity that are traded many times over before being supplied to an end consumer there is little chance of a price signal from a border carbon tax being passed back to a specific high carbon intensity producer. It may be that higher costs of exports from a producer nation will potentially reduce gross exports. This will mean production is scaled back, but at the marginal producer. For countries with weaker national carbon taxation policies the marginal producer may not be the most carbon intensive. It could be the case that less carbon intense production is curtailed in response to lower export opportunities increasing that countries production carbon intensity still further.

**Creating a level playing field**

It is often argued that there is a need to create a level playing field between domestic and other producers of energy.

Because there is a need for a complex system of carbon accounting with a carbon border adjustment this in turn creates an unlevel playing field skewed against cross border trade. Such trade, including if it is low carbon trade, faces far greater administrative barriers under a border carbon adjustment than domestic producers. Arguably such barriers could dwarf any perception of an unlevel playing field for domestic providers under the existing framework.