

Written evidence submitted by UK Steel (ETS0001)

Future carbon pricing

Briefing for BEIS Select Committee

Steel production and carbon emissions

Steel is as a material highly cost-effective, adaptable to a vast array of different applications, and infinitely recyclable. It was an enabler of the first industrial revolution and will perform the same role in the low-carbon transition, as it will be required for wind turbines, electric vehicles, low-carbon buildings, the transformation of energy networks and much more.

However, steel production is a carbon- and energy-intensive process. Globally for each tonne of steel produced an average of 1.85 tonnes of CO₂ is emitted. With the world's annual consumption of steel currently standing at 1.8 billion tonnes and projected to increase each year, this amounts to over 3 billion tonnes of CO₂ each year, an estimated 8% of the global total. In 2019, the UK steel industry sector emitted about 12 million tonnes of CO₂e (including indirect emissions from power production), which constitute 11.5% of UK industrial emissions and 2.7% of all UK GHG emission in 2019. Steel production, therefore, has a significant role to play in meeting the UK's Net Zero target, and any future carbon pricing scheme will have a substantial impact on the industry.

Carbon pricing and trade

Steel is an intensively traded product, with 30-40% of the 1.8 billion tonnes of steel produced globally each year travelling across national borders. The UK imports some 6.6 million tonnes of steel each year, around 60% of requirements, and exports 3.5 million tonnes, just under 50% of its production.

The current approach to decarbonisation has been to price carbon through the EU Emission Trading System (EU ETS). However, as steel is highly trade-intensive, additional costs reduce the ability of domestic companies to compete with international competitors and can instead lead to an increase in import of steel. As the average global carbon intensity for steel production is 1.85tCO₂/tonne crude steel, compared to 1.6tCO₂/tCS for the UK, increases in imports will likely lead to a rise in global greenhouse gas emissions. As such, higher carbon pricing in itself would only lead to a shift of the emissions from the UK to abroad, from the direct UK emission to higher imported and embedded emissions.

The main challenge of carbon pricing is its impact on competitiveness. The steel sector cannot pass on unilateral costs to their customers without losing market shares due to its trade-intensity. Certain steel products are a commodity, which means they are priced globally and that suppliers are price takers. This can mean that steel suppliers often operate on thin profit margins, with difficulty to pass through costs onto end users. The UK steel sector is thus affected by international different carbon costs. As there are currently no protections (such as carbon border adjustments or carbon product standards) from foreign steel producers exporting high-carbon, low-cost steel into the UK and European market, carbon costs damage the industry's competitiveness.

If the domestic steel industry has to compete with imported goods that are not subject to equivalent carbon taxes, it will be outcompeted. It must absorb the costs (of carbon or decarbonisation investment) itself, not passing them on to the consumer and therefore continuing a trend where there is no real business case for decarbonisation and domestic industry is increasingly uncompetitive. There is currently no market for low-carbon steel, and it is not a criterion that customers presently buy on the basis of.

Although carbon pricing is often favoured as an obvious policy tool to aid the reduction of GHG emissions, high carbon price on its own would not stimulate a shift toward decarbonised steel production in the UK, without other supportive policies or measures to also apply the same carbon price to imported steel, as they do not take into account the impact of different pricing levels globally and carbon leakage. Without uniform global carbon prices, additional policies need to be introduced alongside the carbon pricing policies to ensure the steel industry will not be outcompeted by imported high-emission, lower-priced steel.

Options for carbon pricing

The Government is considering three options for carbon pricing at the end of the transition period: A linked UK Emission Trading Scheme (ETS), a standalone UK ETS, and a Carbon Emission Tax (CET).

Linked UK ETS

A UK ETS, which is linked to the EU ETS is by far the preferred option for future carbon pricing, as it provides stability and continuation of the existing schemes, without any of the disadvantages related to a smaller standalone ETS or emission tax. However, it does not deal with the fundamental issue of addressing carbon pricing's impact on competitiveness, risk of carbon leakage, and increase of imported high-emission, lower-priced steel.

Standalone Linked UK ETS

There is a risk that a standalone UK ETS will have too few participants, which would impact future liquidity and prices. Similarly, as the power sector continues to decarbonise, the ratio between power to non-power participants will change, which will affect prices and liquidity, and a UK ETS could see potential price volatility in the early stages of the scheme.

A standalone UK ETS could also end up with a higher carbon price than the EU ETS, which would mean a direct loss of competitiveness affect investments. Persistent cost disadvantages lead to underinvestment, which in turn leads to further erosion of competitiveness, which would lead to carbon leakage and loss of jobs. This is already happening with the Carbon Price Support, which sets a higher carbon price than the EU ETS, and has eroded UK industry's competitiveness.

Concerns have also been expressed about the significant imbalance in measures that aim to drive up the carbon price in the consultation (Supply Adjustment Mechanism, Auction Reserve Price & Auction Success Criteria, the proposed method of redistributing unsold allowances, allowance banking) relative to those that are seen to protect industrial competitiveness. With the exception of the Cost Containment Mechanism, there are no measures beyond a swiftly diminishing pot of free allowances versus an increasingly challenging benchmark, to protect industrial competitiveness in extreme circumstances.

Carbon Emission Tax

HM Treasury recently consulted on the design of a potential Carbon Emission Tax (CET). Several concerning elements of the tax were highlighted by industry. The CET would not allow companies to transfer allowances within companies, which would hinder efficient emission management and lead to unnecessary higher tax burdens, compared to competitors in the EU. Unlike in an ETS, the CET does not offer companies the opportunity to hedge against higher prices, which has previously saved steel producers tens of millions.

If an EU steel company lowers its carbon emissions (either through new technology, lower production, or improved operations), it would be able to sell its free allocations in the EU ETS. Under the CET, UK steel companies would not be able to sell their free tax allowances in the coming years. Instead, HMT proposed a one-off payment at a percentage of the overall tax rate (e.g. at 50% of the confirmed 2021 tax rate), which would disadvantage UK companies compared to the EU counterparts. They would be able to generate revenue through the continuous sale of allowances year after year if they lower their emissions, where UK companies may only receive one payment at 50% of the rate.

The CET is much less flexible than an ETS and will unnecessarily increase costs for steel companies through its design. The concerns outlined above (a single payment compared to continuous payments, potentially less than 100% compensation, lack of ability to hedge, and move allowances between installation or tax years) will lead to a higher tax burden for steel companies operating in the UK. Thus, compared to the current system of participating in the EU ETS (or in a linked UK ETS), the CET will put UK EIs in a significantly worse position and damage their competitiveness.

Conclusion

The introduction and design of carbon pricing have a significant impact on the steel industry, as it is both carbon-intensive and very trade-exposed. Although carbon pricing is often considered a very effective policy tool to reduce emissions, it does not take account of the ability to pass these costs onto consumers and globally difference in pricing levels. Unlike utility companies which add the costs of renewables and other green levies onto electricity bills, steel companies cannot add carbon costs to their prices as they would be outcompeted by producers that do not face similar carbon costs. As such, carbon pricing does not provide the steel sector with a route to decarbonise its production, as higher carbon prices would lead to reduced domestic production and higher imports. Neither of the three carbon pricing options currently under consideration (Carbon Emission Tax, linked or standalone UK ETS) successfully address this issue. However, the steel sector's clear

preference is a linked UK ETS, which would be a continuation of the existing pricing approach. A standalone UK ETS and a CET would both put the industry in a worse position compared to its EU competitors.

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