

The future of UK carbon pricing

Summary

- i. Carbon leakage would harm the UK and the climate. When it comes to carbon pricing, the most critical issue for our sector is how we achieve a level playing-field with our international competitors, so that manufacturing emissions are reduced here in the UK and not offshored. This would be the best outcome for the UK, securing skilled jobs and advanced manufacturing capability in parts of the country targeted by the “levelling-up” agenda; and it would be the best outcome for the climate, supporting cleaner UK manufacturers with their ambition to decarbonise.
- ii. A level playing field is fundamental because we compete on price in a global market. Energy is our most significant operational cost, and we have already exhausted our economic options for emission abatement. Our industry’s pathway to net zero now depends upon access to competitively priced clean heat and power, as well as carbon capture and storage (CCS) infrastructure that allows us to store and use the unavoidable carbon emissions that result from some chemical reactions.
- iii. Carbon pricing can work for our sector with the right design. That means a long-term, predictable price signal, that recognises and accounts for international competitiveness, upstream and downstream impacts, and a sector’s specific pathway to decarbonisation. In the absence of a global carbon market, unilaterally increasing the carbon price for UK operators, without effective carbon leakage provisions, would simply offshore our foundation industries.

The issues

As participants in the EU ETS, UK manufacturers are already at a disadvantage, owing to the carbon price disparity between EU ETS and non-EU ETS manufacturing locations. Moreover, UK manufacturers are at a further disadvantage within the EU ETS, because they face additional direct and indirect carbon pricing over and above their EU competitors. The additional direct cost arises from the UK-only Climate Change Levy charged via their energy bills, whilst the indirect carbon cost comprises the pass-through cost of the UK-only Carbon Price Support (CPS) levied on thermal generators.

Our success in decarbonising electricity means we also face higher electricity prices than our competitors in the rest of the world. The price disparity results from the pass-through cost of the policies that have paid for the decarbonisation of the UK’s electricity sector. The UK’s energy-intensive foundation industries have disproportionately shouldered this cost; industrial electricity prices in the UK are now over 70% above the EU median, and far higher than those faced by our European competitors in Belgium, France, Germany, Italy, the Netherlands and Spain. Electricity wholesale costs now represent just 49% of a UK industrial user’s bill, whilst policy and network costs make up 51% and are rising. The result is that UK manufacturers are funding the success story that is the decarbonisation of our electricity system, at the expense of our own competitiveness.

The cumulative burden of rising energy and carbon costs will overwhelm UK industry if the government does not act. So far, UK gas prices have allowed us to continue to compete internationally. However, the cost of our gas/ heat will rise if industrial consumers

are asked to pay for the decarbonisation of the gas grid as we were with the electricity grid. This process has already started, within the government proposals for a Green Gas Levy (under consultation). The UK’s foundation industries cannot afford to pay for the decarbonisation of the UK’s entire energy system whilst, at the same time, paying a direct carbon price for emissions that are outside of our ability to abate.

Carbon leakage is already happening, although the evidence is often not available in the public domain and so the impact is impossible to quantify without speaking with business. The reasons behind this are:

a) It is very difficult to link a site closure to an energy or carbon price increase. ~70% of our sector is comprised of multinational companies with a global footprint. The comparatively high energy and carbon prices in the UK erode the business case for new investment here, so that each year during budget review new investment is allocated to sister assets in the EU or elsewhere. The result is that UK assets are being run down rather than renewed. This makes them less efficient and so a more obvious target for closure when a challenge comes along (e.g. a recession).

b) Carbon leakage is not just site closure, it is new sites opening overseas rather than in the UK.

China became the largest producer of chemicals in 2009 and have continued to expand their lead ever since, at the expense of European production. These chemicals are not made using clean energy or with CCS. In Europe, we continue to buy them because they are cheap. National business models and policy support play a critical role in attracting investment, and the UK is losing new investment to our overseas competition.

Our proposals for a solution

Carbon pricing can work for industry. It has worked well for power because the power sector has a captive market, viable alternatives and significant policy support. These allow it to pass through the cost to its customers. Industry competes globally for market share so, in the absence of a global carbon price, cannot pass through the cost of decarbonisation to its customers. To reach net zero, industry needs access to a competitively priced and reliable supply of clean energy. The scale of the investment is vast and direct carbon pricing, on top of paying for the energy transition, further erodes the business case for investing these long-term projects. For our sector, an effective carbon price would provide a long-term, predictable price signal. It would

recognise international competitiveness (e.g. through carbon border adjustment), upstream and downstream impacts, and a sector's specific pathway to decarbonisation.

The impact of carbon leakage can be mitigated. The UK government must consider all options for maintaining a level-playing field for UK industry, with the EU and the rest of the world, whilst we roll-out the energy and emission infrastructure required for net zero manufacturing. This could be achieved by:

- a) Levelling the playing field on carbon price, through free allocation or other cost-containment mechanisms like that used in Alberta, Canada's carbon pricing scheme.
- b) Ensuring competitively priced energy supplies by exempting industry from the pass-through cost of policies to decarbonise the power sector, as recommended by Dieter Helm's Cost of Energy Review;
- c) Providing grant support for investments in energy efficiency and industrial decarbonisation;

d) Providing subsidy support for the roll-out of industrial CCS and use of cleaner energy sources (e.g. hydrogen);

The threat of carbon leakage can be eliminated, either through the establishment of a worldwide carbon pricing system, or through the creation of a market for zero carbon industrial products. The former is out of our immediate control, but the latter is achievable now with the right policies. The Committee on Climate Change advise that it could be done through product standards or a carbon border adjustment measure (CBAM). The EU are already looking at implementing a CBAM for their foundation industries because they recognise it is required to reach net zero whilst maintaining a domestic manufacturing base. A UK CBAM could be used to apply a carbon price to imported products, effectively applying a carbon price to manufacturers outside of our jurisdiction. The carbon price can also be rebated on UK exports to locations that do not currently apply a carbon price, allowing cleaner UK manufacturers to compete on a level-playing field overseas. In this way, the UK could make a huge contribution beyond its borders, by outcompeting more carbon intensive goods in the global market.

Investing in ammonia

Ammonia is a vital building block in products we use every day. It sits at the root of important value chains in agriculture and industry and we make it here in the UK. However, investment to establish net zero ammonia assets is going elsewhere. This is because the UK has comparatively high energy costs and the policy support is not there.

In July, Air Products, ACWA Power, and NEOM announced a \$5 billion, 4 GW green ammonia plant in Saudi Arabia, to be operational by 2025. In October, Yara and Ørsted announced plans to develop a 100 MW wind-powered electrolyser plant for ammonia production in the Netherlands, to be operational by 2025 subject to EU funding. Also in the Netherlands, as part of the Porthos scheme, OCI Nitrogen are developing a project to capture emissions from their ammonia plant for storage in empty gas fields under the North Sea.

The Government's proposals – our preference

The government has proposed three main options for carbon pricing from 2021: 1) a UK ETS linked to the EU ETS; 2) a standalone UK ETS; 3) a carbon emissions tax. At present, we only have draft proposals for the carbon emissions tax.

Based on the current government proposals, the majority of our members support a UK ETS that is linked to the EU ETS. Alignment to the EU ETS would help to level the playing field with the EU at least, by affording us the same direct carbon price across Europe. It would also avoid the issues of liquidity that could occur in a UK-only standalone scheme. Moreover, a scheme which is linked to the EU would provide continuity and therefore business confidence.

If we cannot negotiate a link to the EU scheme, then the majority of our members would support BEIS' proposals for a standalone UK ETS above the Treasury's draft proposals for a carbon emissions tax. Our main concerns with the carbon emissions tax proposals are that they provide business with less flexibility and less of an incentive to improve beyond the benchmark. Furthermore, unlike in a 'cap and trade' ETS, there is no limit placed on emissions in a carbon emissions tax, so the price is arbitrary.

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