

UK-EU Energy and Climate Cooperation: Why heightened engagement is imperative for Net Zero

May 2023



Executive Summary

The UK is in the midst of a dramatic energy transition. The importance of rapidly decarbonising our economy and rolling-out cheap, clean energy has been evidenced recently by the gas crisis, amplified by the unprovoked Russian invasion of Ukraine, and the knock-on effect to security of energy supply and affordability. These challenges are also faced by countries across Europe, which are equally grappling with the need to provide a cleaner, cheaper and, more secure energy system.

Beyond energy security, we share common climate ambitions with our European neighbours. The UK led the way in setting the world's first legally binding Net Zero target by 2050; a target which the European Union (EU) has also committed to.

Our relationship with the EU on energy and climate change is underpinned by the UK-EU Trade and Cooperation Agreement (TCA), which sets out a shared commitment to cooperation on the energy transition and in tackling climate change. Whilst a strengthening of cooperation has been difficult in recent years, the Windsor Framework, unveiled by the EU and UK in February 2023 as a way forward in resolving tensions over the Northern Ireland Protocol, marks a significant turning point in UK-EU relations and paves the way for more positive future cooperation.

We hope that the Windsor Framework will play a key role in strengthening UK-EU relations and unlocking greater engagement across a wide range of key energy and climate issues help to fulfil shared ambitions and commitments.

It has been encouraging to see positive progress and cooperation in relation to some of the key provisions in the Energy Title of the TCA. Such as, the recent agreement of a Memorandum of Understanding¹ (MoU) on renewable energy development in the North Sea region between the UK and North Seas Energy Cooperation (NSEC) countries, followed by the North Sea Summit on the 24th April 2023 in which the UK participated for the first time following Brexit.²

Beyond these, the promise of greater cooperation that could allow us to reach Net Zero more quickly and at a lower cost, remains largely unfulfilled. This is evidenced by the limited progress in areas such as the design and implementation of new electricity trading arrangements across the EU-GB electricity interconnectors; a policy that has potential to lower energy bills in the UK. The April 2022 deadline for the new trading arrangements to be in place has long since passed, and the UK-EU Specialised Committee on Energy (SCE) has met only three times since it was established in early 2021.³

¹ MoU Agreement between NSEC and UK (December 2022) [Link](#)

² North Sea Summit (April 2023) [Link](#)

³ The SCE is the main body to oversee the implementation of the Energy Title in the TCA

Despite slow progress, there remains huge potential for increased energy and climate cooperation to drive down bills and help us reach Net Zero more cost-effectively.

Energy UK analysis shows that heightened cooperation around issues like carbon pricing and energy trading has the potential to lower energy costs by up to £1.1bn annually.⁴ Our analysis highlights the crucial role that working closely with European partners can have on tackling the climate, energy and cost-of-living crises.

This Energy UK report explores UK-EU energy and climate cooperation post-Brexit, with particular focus on the trade of electricity. We examine the impact that Brexit has had on the way that electricity is traded across the interconnectors, how internal processes have changed for Power Exchanges operating in the UK and the wider impacts of this on customers and the path to Net Zero. In looking at reducing barriers to trade more broadly, this report also considers issues surrounding carbon pricing as well as Carbon Border Adjustment Mechanisms (CBAMs).

The simple reality is that positive, proactive cooperation with the EU will allow us to reach Net Zero faster, lower energy bills through increased efficiencies, reduce carbon leakage and bolster energy security.

It is necessary for both Parties to be committed to implementing, in full, the Energy Title of the UK-EU Agreement and heightened cooperation is the easiest way to ensure that the UK and our European neighbours will never again have to tackle an energy crisis caused by geopolitical factors and an overreliance on volatile and expensive gas imports.

⁴ Energy UK analysis based on 2022 data. See pages 4 and 14 for more information

Background

Prior to the 1st January 2021, Great Britain's (GB) electricity market was part of the EU Internal Energy Market (IEM) which brought together bids and offers in the Single Day-Ahead Coupling arrangements, and the available capacity to optimise the power flows across electricity interconnectors. One of the by-products of these arrangements was that a single GB day-ahead clearing price was created; ensuring interconnector flows were efficiently calculated. However, one of the immediate consequences of Brexit and the departure of the UK from the IEM was a GB market de-coupling and the loss of a single GB day-ahead clearing price.

Following Brexit, electricity is no longer traded through the EU market coupling regime. This means that interconnector capacity is now allocated via a patchwork of different arrangements. For example, the Channel interconnectors have reverted to explicit capacity allocation i.e., interconnector capacity is now sold to the market separately and independently of the electrical energy. The Single Energy Market-Great Britain (SEM-GB) interconnectors across the Irish Sea use a form of market coupling (implicit capacity allocation) based on intraday auctions. And finally, the North Sea Link interconnector between ourselves and Norway uses a bespoke form of day-ahead market coupling (implicit auctions) which operates alongside, but not as a part of, the EU market coupling regime.

As such, GB Power Exchanges - EPEX Spot and Nord Pool - are now fully operating separated day-ahead markets, settling and clearing at different and independent prices. As we explore in Chapter 2, this mismatch of different trading arrangements has led to a less efficient, more complex and costly model for the trade of electricity over the interconnectors between the EU and GB, as well as adding to the regulatory and administrative burdens of energy traders.

The TCA commits both the UK and EU to ensuring the most efficient use of the electricity interconnectors through the development of new trading arrangements, which should result in robust and efficient outcomes for all relevant timeframes (i.e., forward, day-ahead, intraday and balancing). Indeed, the TCA sets out the basis for these new arrangements, with the day-ahead timeframe being the priority as the main arena for the trade of power, as an *implicit* (i.e., selling capacity on the interconnector and electricity together) Multi-Region Loose Volume Coupling (MRLVC) trading model, with the objective of maximising the benefits of energy trade.⁵

⁵ UK-EU Trade and Cooperation Agreement (December 2022)

Workstream Importance

Customer Benefits

In most situations and systems, inefficiencies can often be felt most acutely by customers. Less efficient cross-border trading arrangements increases average wholesale market prices, especially in a market that has greater interconnector capacity than others. On average, inefficient interconnection increases prices on both sides of the Channel. However, as the UK market is smaller and has historically been a net importer of electricity, the impacts on wholesale prices can be more pronounced.

Previous research has indicated that moving to explicit trading arrangements over the interconnectors can add between 0.25% - 0.70% to wholesale costs. This was estimated to cost between £90m and £250m in 2021.⁶ Applying this methodology to 2022, Energy UK analysis suggests that the cost for 2022 is likely to fall somewhere between £130m and £370m, due to the higher wholesale prices that were seen during this period.

The future costs of inefficient trading relationships will depend on the trajectory of wholesale prices, but given that these are set to remain elevated in the medium-term, it is not unreasonable to think the loss will be hundreds of millions of pounds per year throughout much of the 2020s, unless the current arrangements are changed. These costs are shared between generators and consumers in the UK and the EU depending on trade flows and how much carbon costs are passed on to customers.

It is, therefore, clear that more efficient cross-border trade can benefit customers by helping to reduce energy bills, as well as ensuring we reach our Net Zero target in the most cost-effective way.

Meeting Net Zero

To meet Net Zero both the UK and EU will need to move away from natural gas – which is currently the main source of grid flexibility. Flexible, low-carbon alternatives are needed and as renewable energy generation forms a larger part of the electricity mix on both sides of the continent, interconnectors can help ensure both the UK and EU continue to have stable supply, at lowest cost.

Electricity interconnection allows greater grid flexibility and cost-efficiency, helping to maximise renewable potential by enabling excess renewable power to be exported to neighbouring countries, rather than curtailed. Interconnectors are important pieces of energy infrastructure which can help meet demand on both sides of the Channel, whilst contributing to energy security. Electricity interconnection can also be key in helping the UK to reach its ambition of 50GW of offshore wind by 2030 cost-effectively.⁷

The need to return to a more efficient model for the trade of electricity over the interconnectors is therefore clear and the TCA rightly recognises the importance of efficient cross-border trade in facilitating the growth and integration of renewables. Efficient, implicit cross-border trade will also be critical in developing more interconnector capacity as well as helping to unlock the potential of the second generation of electricity interconnectors: Multi-Purpose Interconnectors (MPIs). MPIs connect the UK and Europe to clusters of wind farms in the North Sea; thereby, unlocking the potential of the North Sea 'powerhouse' whilst minimising the infrastructure required to do, so as well as marine impact.

⁶ Financial Times Article (September 2022) [Link](#)

⁷ British Energy Security Strategy (April 2022) [Link](#)

As the UK transitions to Net Zero, we expect UK electricity export capacity to increase significantly (with the UK eventually becoming a net electricity exporter) due to the sheer volume of offshore wind that will need to be built around the British Isles (Figure 1). The current issues caused by inefficient trading arrangements are therefore expected to worsen over time as the capacity of interconnectors doubles from the 8GW that existed around the time the TCA was signed to 16GW in 2025. At present, the current ambition, which was recently re-emphasised as part of the Government’s ‘Energy Security Day’ in March 2023, is at least 18GW of electricity interconnection by 2030.⁸

Beyond 2030, there are a range of forecasts for the UK’s future interconnection capacity. For example, in National Grid ESO’s Future Energy Scenarios (FES) 2022 report under the ‘Leading the Way’ scenario we see electricity interconnector capacity increase significantly to 28GW by 2050.⁹ Whilst this is just one prediction, the 2022 National Grid ESO FES report indicates that the impact of inefficient cross-border trading could become more pronounced as the UK continues on its path towards Net Zero.

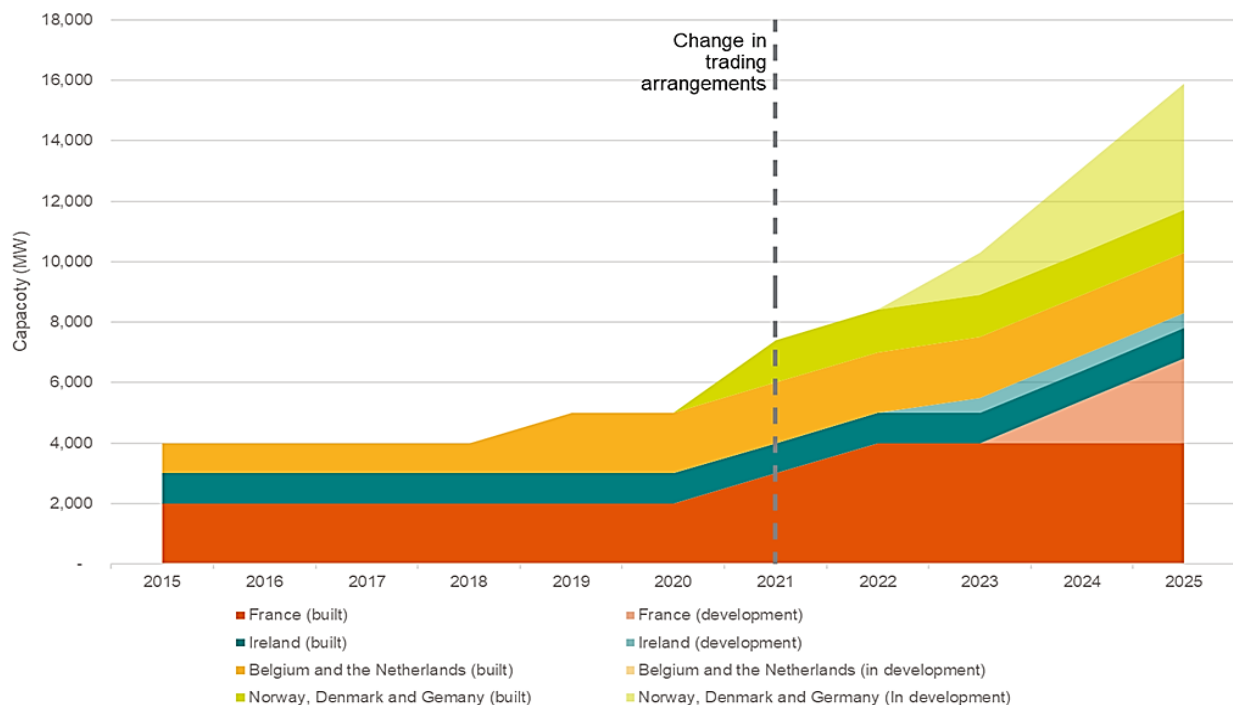


Figure 1. Existing and future interconnector capacity with GB regulatory approval. Source: Ofgem

Energy UK is concerned that the increasing issue of inefficient cross-border trading arrangements may lead to greater uncertainty and a reduced investment drive in hybrid projects, such as MPIs, between the UK, neighbouring EU Member States and Norway. In turn, this could adversely impact the scale of renewable deployment required to cost-effectively meet offshore wind targets and Net Zero across the EU and the UK. Reaching an operable and resilient Net Zero power system at the lowest cost requires efficient and workable trading arrangements which maximise the benefits of cross-border energy trade.

⁸ Powering Up Britain ‘The Net Zero Growth Plan’ (March 2023) [Link](#)

⁹ National Grid ESO ‘Future Energy Scenarios’ (July 2022) [Link](#)

Energy UK Recommendations

- The recent challenges over the Northern Ireland Protocol have acted as a political blocker in the implementation of numerous provisions within the TCA. The Windsor Framework arguably opens the door for heightened UK-EU engagement on energy and climate, as well as the potential for greater progress on the new electricity trading arrangements more specifically. The UK Government should therefore use this opportunity to strengthen its engagement and collaboration with the EU to facilitate technical cooperation on the design and implementation of the new electricity trading arrangements.
- Government should also actively engage with the UK energy sector, where relevant, to ensure that effective new trading arrangements, benefiting both consumers and market participants, are put in place as soon as practicable.
- The recent signing of the MoU for North Seas Energy Cooperation (NSEC) and the UK's presence at the most recent North Sea Summit in April 2023 are significant milestones for renewed UK-EU engagement and collaboration. A strong, cooperative and mutually-beneficial relationship is needed to reach our common climate objectives and ensure energy security. Both Parties must work together to seize the renewable potential of the North Sea region, drive low-carbon investment and recognise that efficient cross-border trading arrangements will play a pivotal role in this; underpinning NSEC ambitions. This progress should now be followed with infrastructure plans and market arrangements to maximise the offshore wind potential of the UK and Ireland to boost UK and European energy security.
- More specifically, the UK and Ireland should collaborate on the development of infrastructure plans and market arrangements to maximise the shared offshore wind and hydrogen potential of the Irish and Celtic Seas, and help unlock the vast renewable energy potential of the West coast of Ireland.

As part of the initial work in developing the new trading arrangements, a Cost-Benefit Analysis (CBA) was undertaken in Q1 2021 by EU and GB Transmission System Operators (TSOs). The pre-Brexit cross-border trading arrangements had resulted in a single GB day-ahead auction clearing price, and the CBA found that GB price coupling (i.e., a single price), for the wholesale electricity market in the day-ahead timeframe, is highly desirable for the effective implementation of Multi Region Loose Volume Coupling (MRLVC). As discussed at the start of Chapter 1, this should underpin efficient trading arrangements with the EU according to the TCA.¹⁰

Indeed, the lack of a single GB day-ahead auction clearing price, with the EPEX Spot and Nord Pool Power Exchanges independently calculating separate prices through separate auctions, may create issues in the effective implementation of MRLVC, such as incomplete optimisation, a negative impact on price formation and increased complexity of fallback and coordination procedures. For these reasons, the CBA concluded that a single GB day-ahead clearing price should be a common feature in all MRLVC design options.

Price Coupling

In September 2021, the former Department of Business, Energy and Industrial Strategy (BEIS) now the Department for Energy Security and Net Zero (DESNZ) launched a public consultation that sought views on the current post-Brexit arrangements for trading electricity on the Power Exchanges in the GB wholesale electricity market and presented the Government's proposals to support efficient cross-border trading - including 'a new mechanism for a single GB clearing price'.¹¹

Energy UK welcomed BEIS' consultation and considered it a necessary 'no regret' step in resolving the immediate consequences of the day-ahead price de-coupling issue.¹²

Power Exchange Perspective

Before Brexit

Prior to the 1st January 2021, EPEX Spot and Nord Pool were participants in the EU's Single Day Ahead Coupling (SDAC) electricity market. According to the SDAC procedures and to the local contracts governing the GB market participants (Power Exchanges and TSOs), each of the GB Power Exchanges would submit their respective order books to the SDAC algorithm, together with the available interconnector capacities for calculation of a single GB day-ahead clearing price and determination of cross-border flows.

What is a Power Exchange?

Power Exchanges (such as Nord Pool and EPEX Spot) are platforms where electricity can be traded securely and anonymously between their members. Power Exchanges are part of the wholesale market for electricity, and electricity producers, traders and/or consumers use Power Exchanges to sell their production, speculate and ensure that the demand of their clients can be satisfied.

¹⁰ Cost Benefit Analysis of Multi-Region Loose Volume Coupling (MRLVC) (April 2021) [Link](#)

¹¹ BEIS Consultation 'Re-Coupling GB auctions for Cross-Border Trade with the EU at the Day-Ahead Timeframe' (September 2021) [Link](#)

¹² Energy UK Response to BEIS consultation on 'Re-Coupling GB Auctions for Cross-Border Trade with the EU at the Day-Ahead Time Frame' (December 2021) [Link](#)

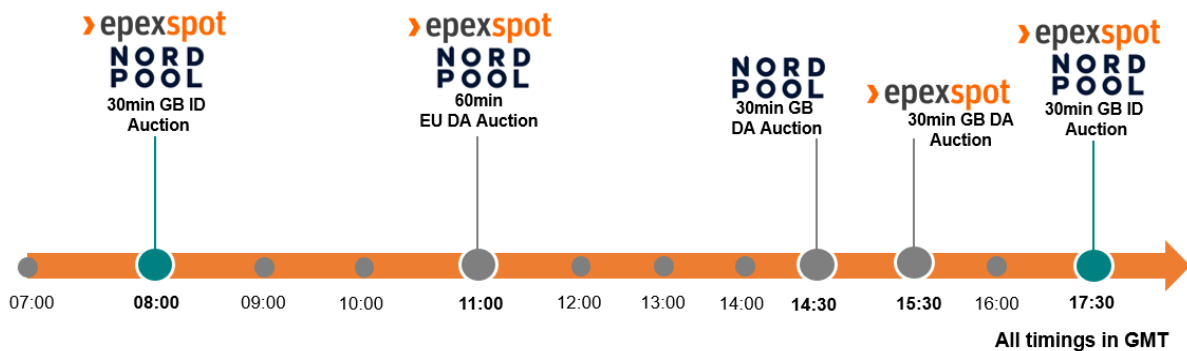
After Brexit

With effect from the 1st January 2021, GB Power Exchanges have de-coupled their respective day-ahead markets and now have to calculate their own day-ahead auction results independently of any cross-border capacity allocation process and of each other. As illustrated by Figure 2 below, the GB day-ahead 60-minute auction is no longer part of the European SDAC. Rather, EPEX Spot and Nord Pool now run separate day-ahead auctions.

For example:

- The EPEX Spot GB 60-minute day-ahead auction closes at 09:20 (UK time), with results by 09:30.
- The Nord Pool day-ahead auction closes at 09:50 (UK time), with results by 10:00.

Pre-Brexit Auction Timings



Post-Brexit Auction Timings

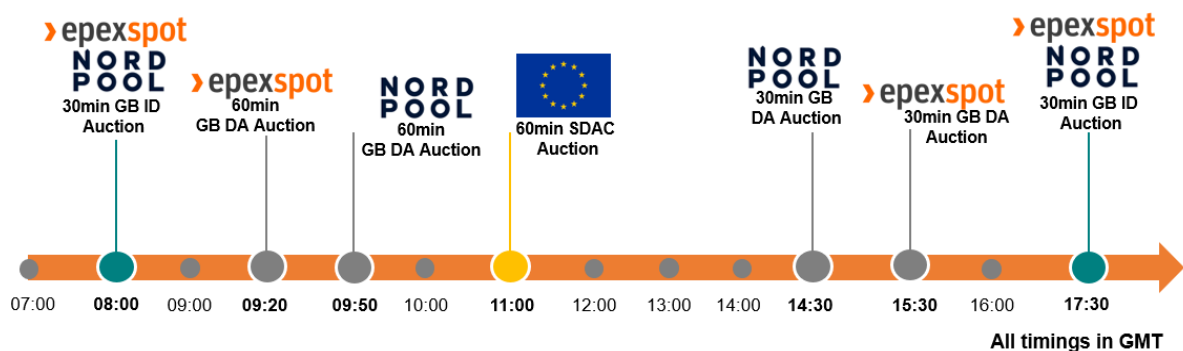


Figure 2. Pre-and-post Brexit auction timings for the day-ahead (DA) and intraday (ID) auctions.

However, there have been no changes compared to the pre-Brexit situation in the intraday (ID) timeframe for both continuous and auction-based intraday.

Assessment of the Current Situation

Having two day-ahead auctions, often clearing at different prices, inevitably leads to additional risks for market participants and ultimately additional costs for consumers. With regards to the technicalities and practicalities of everyday energy trading, a return to non-coupled GB markets resulted in:

- Practical difficulties and additional operational burdens for market participants in managing two day-ahead market auctions and participating in several capacity auctions across the interconnectors.
- Inefficiencies associated with the gap between the day-ahead auctions and the scheduling of the interconnector flows.
- The lack of a single GB day-ahead price.
- Less liquidity (i.e. lower volumes being traded) in the market. In 2021, less liquidity led to higher volatility and uncertainty where the outcome of day-ahead markets was hard to predict, and the price deviations between the Power Exchanges significant. In turn, this removed a degree of confidence from the market, and created an additional risk cost to trading activities.
- Difficulties (greater uncertainty and complexity) with regards to the management of portfolios, particularly on the most pronounced days where the differences between hourly prices in the auctions are hundreds of pounds per MWh.

The decision on the *Re-coupling GB Auctions for Cross-Border Trade with the EU at the Day-Ahead Timeframe* consultation is due for publication. We urge Government to publish its decision as soon as possible, and Energy UK looks forward to engaging with Government on this over the coming weeks and months.

Energy UK Recommendations

- Re-coupling both Power Exchanges and re-merging their order books with a single day-ahead auction should be prioritised by the Government, in order to reduce the additional and avoidable risks and costs that have been imposed on market participants and consumers following Brexit.¹³
- GB day-ahead price recoupling can be done prior to and independently of Multi-Region Loose Volume Coupling. In our view, the debate on the wider price coupling solution is ongoing and therefore it is not appropriate to limit this just to MRLVC.
- In the longer-term, Energy UK considers that, in line with the TCA, the development of arrangements to deliver robust and efficient outcomes for *all* timeframes, including day-ahead, intraday, but also forward and balancing, should be further explored. However, the immediate focus should be on the day-ahead timeframe given its priority and deadlines set out in Annex 29 of TCA.
- The short-term and forward electricity trading arrangements should ideally be the same for all UK borders - including across the North Sea Link - to avoid market distortions.
- There is clear benefit of having a single GB day-ahead clearing price to all GB-EU and GB-Non-EU interconnection. However, the extent to which it is legally possible to expand the MRLVC regime to all GB interconnectors (including GB-Non-EU interconnectors) needs to be examined further.
- Energy UK acknowledges that the European Commission and the UK Government are taking steps to assess whether the MRLVC design, as it is currently proposed, is a workable and efficient solution. Energy UK would encourage both Parties to make the results of their assessment known and to consider amending the MRLVC design options if evidence suggests that it will not deliver efficient interconnector flows and benefits to customers.

¹³ While the majority of Energy UK members support the Government's proposed action to bring about the re-coupling of the GB Power Exchanges in the day-ahead market, there is a greater diversity of views on further actions beyond this immediate priority.

Beyond the immediate need for efficient cross-border trading arrangements, it will be critical to ensure that any new potential barriers to cross-border trade, such as the EU's introduction of a Carbon Border Adjustment Mechanism (CBAM) in relation to its treatment of electricity, can help to enhance our ability to import and export low-cost, green energy rather than hinder. Policy and regulatory alignment are crucial to trade flows, and this should be acknowledged by the UK Government as it now develops its own positions around carbon leakage mitigation policies, including the possibility of a domestic CBAM.

EU CBAM

The EU CBAM was first proposed in July 2021 by the European Commission in its flagship 'Fit for 55' Package. During the Trilogue negotiations between the European Commission, Parliament and Council which took place towards the end of 2022, an agreement was made which shaped the face of the EU's new carbon border tax.

The EU's CBAM is designed to mirror and complement the current EU Emission Trading System (ETS) functioning on imported goods and will be phased-in with a transition period starting from the 1st October 2023. Initially, it will cover imports into the EU of aluminium, iron, steel, cement, fertilisers, electricity and hydrogen, as well as some downstream products.¹⁴

What is a CBAM?

A CBAM is an additional charge on carbon intensive goods entering into a given jurisdiction. Carbon border adjustments are designed to create a level playing field and minimise the risk of carbon leakage by applying fees on imported goods based on their emissions content, compared to the price that would be paid to produce these goods in that territory, country, or state.

Implications for the GB Electricity Sector

Under the EU CBAM regulation, third countries which have linked their own carbon market to the EU ETS (Switzerland, for example) and/or are part of the European Economic Area (EEA) are exempt from the EU CBAM on electricity imports. The EU is the UK's main trading partner, especially in carbon-intensive goods such as iron, aluminium and steel, and there are multiple electricity interconnectors between the UK and several EEA Member States. However, the UK is not among countries currently exempt from the EU CBAM and the regulation makes clear that the UK will not be exempt unless the UK ETS and EU ETS become linked.¹⁵

Energy UK is supportive of appropriate and robust measures to minimise the risk of carbon leakage and support global decarbonisation efforts, whilst maintaining the cross-border competitiveness of power, Carbon Capture and Storage (CCS) and hydrogen against higher carbon alternatives elsewhere.

¹⁴ EU Carbon Border Adjustment Mechanism [Link](#)

¹⁵ There is a temporary exemption until 2030 available for countries that have coupled electricity markets.

At present, however, we have concerns that the current simplistic design of the EU CBAM, particularly in relation to electricity, could adversely impact and have unintended consequences for the cross-border trade of low-carbon electricity over the interconnectors between the GB and continental Europe.

Unlike other goods, the physical characteristics of electricity and the fact that electricity is largely traded anonymously via Power Exchanges means that it is difficult to assign a precise value for the carbon content of each MWh of traded electricity and prove a carbon price has been paid by the producer(s).

Therefore the current approach taken in the EU CBAM regulation is to use default values for the carbon content of traded electricity. Despite the decarbonisation policies for GB electricity generation being consistent with the EU's policies, the default value for GB will, predominantly, be based upon gas as the marginal technology. Thereby, this has the net effect of labelling all exports of electricity from GB as being from fossil-fuel sources. As it currently stands, the EU CBAM fails to consider renewable sources of electricity as export drivers, which may discourage future low-carbon electricity imports from outside the EEA, increase emissions from EU fossil-fuelled plant that replaces lower carbon imports and increase renewable generation curtailment in GB.

As referenced in Chapter One, GB electricity export capacity is expected to increase significantly as the UK transitions towards Net Zero. Efficient, effective cross-border electricity trade is needed to help the UK to reach Net Zero in the most cost-effective way and to support the mass build-out of offshore wind. However, the current design of the EU CBAM has the potential to inadvertently increase barriers to electricity trade through the creation of additional costs and administrative burdens relating to compliance with the mechanism.

Additionally, with regards to Northern Ireland (NI), it is unclear how an EU CBAM would operate in practice. In particular, under the Single Energy Market (SEM) Annex of the NI Protocol, electricity generators in Northern Ireland remain in the EU ETS and therefore any EU CBAM would also need to apply between NI and GB, or electricity in Ireland should be exempt from an EU CBAM to maintain SEM operation. Such an approach to CBAM and its impacts on GB-NI trade will need to be discussed and agreed in detail between the UK and EU within the broader Northern Ireland Protocol discussions.

More broadly, the price differences between the UK ETS and the EU ETS may also pose challenges in the context of the EU's CBAM. For example, if the UK ETS price is higher than the EU ETS price (which it has been on average since auctions first began in 2021), British companies will be at a competitive disadvantage in the EU, their largest export market. However, when the UK ETS price is lower than the EU ETS price, British companies exporting goods to the EU will be obliged to pay the difference. This revenue will be collected by the EU, not the UK.

Carbon Market Linkage and CBAM

Following Britain's departure from the EU, the UK energy sector has remained strongly in favour of agreeing a link between the UK ETS and EU ETS. However, with the reality of an EU CBAM the rationale for linkage has become far greater and Energy UK continues to urge the UK Government to begin linkage negotiations with the EU as soon as practicable to negate the impacts of the EU's CBAM on the GB electricity system.

Additionally, whilst the EU ETS is the largest and most mature emissions trading system in the world, linkage would benefit *both* Parties by enabling the UK and EU to reach Net Zero faster and more cost-effectively. For the UK, the advantages of linkage are clear in terms of lower transaction costs from increased liquidity, greater price stability with lower vulnerability to market shocks and price discovery from market signals identifying the lowest cost abatement from across Europe, rather than just the UK. ETS Linkage would also provide a more stable environment for investment into low-carbon alternatives.

Linkage requires two crucial elements; political will and alignment on environmental ambitions. From a technical perspective, given the current design similarities between the UK and EU's carbon trading regimes, there are no two emissions trading systems that are easier to link. Linkage constitutes an international trade mechanism that retains full use of revenues and ability to set the majority of the rules. This would ensure that such a mechanism is beneficial both for the UK's economy and sovereignty. In addition to the benefits of linkage detailed above, a link between the UK ETS and EU ETS would align both Parties' decarbonisation pathways and show continued shared international leadership in tackling climate change.

Associated Costs of an Un-Linked Market

Since auctions first began in May 2021, the UK ETS has been trading at different prices to the EU ETS (Figure 3):

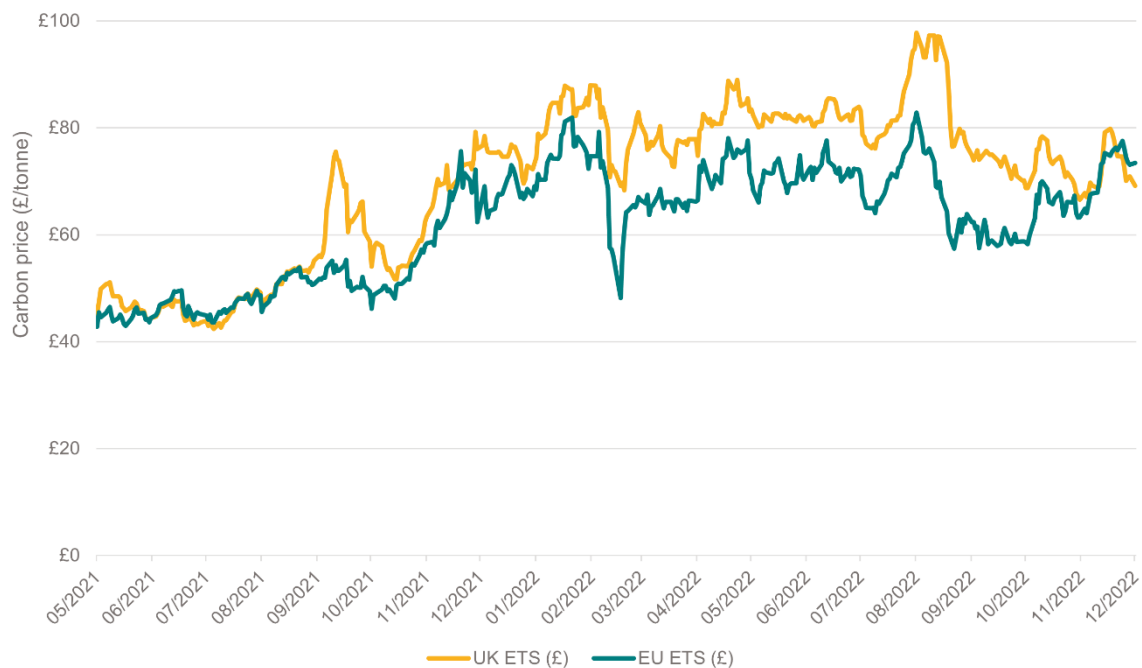


Figure 3. UK/EU ETS differentials May 2021 – December 2022

It is the differences between carbon price, coupled with the unpredictability of those price differentials, which creates competitive distortions within the market.¹⁶ Linkage would create a more level-playing field for the UK in terms of carbon pricing, helping to limit competitive distortions and leading to aligned cost-implications for industry across the UK and the EEA. Furthermore, ETS linkage would be beneficial for international commerce, minimising the risk of carbon leakage and lowering the costs of achieving Net Zero. Thereby, facilitating trade and investment between the Parties, as per the objective of the Energy Title of the TCA.

According to our analysis, across all sectors, the cost of greater carbon prices in the UK in 2022 was around £700m; the majority of this (£480m) is in power generation.¹⁷ This, coupled with the additional costs associated with the loss of the integrated market (£130m - £370m) as set out in Chapter 1 means that the post-Brexit trade arrangements relating to UK electricity created over £800m of additional costs in 2022, with a worst-case scenario at around £1.1bn in additional costs borne by consumers and electricity producers. These figures demonstrate why ETS linkage, carbon price alignment and, more generally, heightened cooperation and engagement regarding energy and climate issues with the EU is crucial not only for the UK energy sector but across the UK economy more broadly.

Whilst it remains unclear when and if ETS linkage will be added to the UK's political agenda, Energy UK very much welcomes the attention of the Government on the issue of carbon leakage and supports the recent publication of its *Addressing Carbon Leakage Risk to Support Decarbonisation* consultation.¹⁸ Creating level playing fields, and preventing and lifting barriers to trade, particularly those which will help facilitate Net Zero, are long-standing principles of Energy UK. Whilst the direction of the UK Government on carbon borders is to be developed, Government should look to take a coordinated and integrated approach to carbon leakage over the coming months, taking into consideration how any future carbon leakage mitigation policies will interact with both the UK's and EU's carbon markets, the Carbon Price Support, as well as the EU's CBAM.

¹⁶ Ember Carbon Price Tracker. [Link](#)

¹⁷ Analysis excludes the Carbon Price Support (CPS) currently at £18 per tonne carbon dioxide

¹⁸ HMT/DESNZ 'Addressing Carbon Leakage Risk to Support Decarbonisation' consultation (March 2023) [Link](#)

Energy UK Recommendations

- The phase-in of the EU's CBAM reinforces the need for the UK to continue its high ambition and convergence with EU policies on carbon pricing and borders.
- Whilst ETS linkage is a key goal for the UK energy sector, as a shorter-term action Energy UK urges Government to pursue bilateral engagement with the EU on a bespoke UK-EU CBAM agreement prior to fiscal start of the EU's CBAM on 1st January 2026. The EU is ahead of the UK in this space, and the EU's CBAM opens up a window of opportunity for positive and proactive UK-EU engagement on shared-interest policies, such as carbon leakage. We therefore encourage cooperation between both Parties whilst the EU finalises its CBAM regulation and as the UK develops its own positions on carbon leakage mitigation policies – including the possibility a domestic CBAM.
- Energy UK welcomes the publication of the UK Government's consultation on carbon leakage, and supports the attention of Government on this important issue. Like the EU, the UK must have suitable carbon leakage policies in place to ensure British companies are not disadvantaged in international markets and UK decarbonisation efforts are not undermined. The UK needs to maintain its position as a climate leader on the global stage, and further delays in implementing carbon leakage policies could be detrimental to this. Government must actively engage with the energy sector, and across UK industries more broadly, throughout the process to ensure the most appropriate policies are put in place.
- Carbon leakage is a concern amongst policymakers, and interest in carbon border adjustments is growing globally; particularly within jurisdictions that have more stringent climate policies. Best practice, expertise and information sharing should be encouraged to ensure any future carbon leakage policies are appropriate and carefully designed in line with World Trade Organisation rules. This should be considered by the UK Government both during and after the consultation phase of its carbon leakage consultation.
- More broadly, Energy UK calls for the sensible design and appropriate application of future CBAMs. Carbon border frameworks should consider the climate ambitions, decarbonisation policies and carbon price equivalents of jurisdictions that may be subject to such a mechanism, to ensure barriers to the trade of low-carbon goods are minimised.
- Whilst the UK and EU's shared climate ambitions should minimise the negative effects of the EU's CBAM, any adverse impact could be exacerbated if the UK's climate agenda begins to diverge significantly from that of the Europe's. With this in mind, it is imperative that the UK ensures that its decarbonisation and climate policies, including the UK ETS and any future carbon leakage mitigation measures, remain closely aligned to the EU to avoid additional and/or significant CBAM charges on GB exports.

Concluding Messages

The UK-EU Trade and Cooperation Agreement places climate change at the core of the common UK-EU agenda. Given our shared Net Zero ambitions and the recent energy crisis amplified by the unjustified Russian invasion of Ukraine, energy and climate are two areas with an overwhelming rationale for robust UK–EU cooperation. The UK Government must continue to recognise this and prioritise driving forward cooperation and coordination with Europe, including on carbon market linkage and carbon border taxes.

The UK-EU MoU on the North Seas Energy Cooperation and subsequent UK participation at the most recent North Seas Summit is very welcome, and should be followed with infrastructure plans, market arrangements and further summits to enable the offshore renewable potential of the North Sea, as well as the Irish and Celtic Seas, to boost UK and European energy security.

Equally, work towards the design and implementation of the new electricity trading arrangements should be prioritised by both Parties, in order to facilitate efficient cross-border trade. This workstream is vital to helping keep customer's bills down, facilitating future interconnector capacity, enabling low-carbon flexibility and the development of MPIs, as well as minimising system complexity, regulatory and administrative burdens for energy traders.

The recently unveiled Windsor Framework should help to pave a path forward for more positive UK-EU relations and heightened engagement, and both Parties must seize this opportunity.



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